

TELECOM REGULATORY AUTHORITY OF INDIA

RECOMMENDATIONS

**ON
INTRODUCTION OF COMPETITION**

IN

NATIONAL LONG DISTANCE COMMUNICATIONS

December 13, 1999

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**TELECOM REGULATORY AUTHORITY OF INDIA
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TELECOM REGULATORY AUTHORITY OF INDIA

RECOMMENDATIONS ON INTRODUCTION OF COMPETITION IN NATIONAL LONG DISTANCE COMMUNICATIONS

CONTEXT

1. India had committed during the negotiations on Basic Telecommunications under the General Agreement on Trade in Services (GATS) in the World Trade Organization (WTO) to review further opening up of national long distance service beyond the service area in the year 1999. In pursuance of this commitment and in the light of the relevant provisions of the [Telecom Regulatory Authority of India \(TRAI\) Act 1997](#), the TRAI decided (in June 1998) to commission a study on the introduction of competition in the national long distance communications with a view to making recommendations to the Government in the matter. The Terms of Reference of the study were formulated in consultation with the Department of Telecommunications (DOT).

2. In the meanwhile, the [New Telecom Policy \(NTP\) 1999](#) was announced (in March 1999) by the Government which, *inter alia*, envisaged opening up of the National Long Distance (NLD) Service beyond service area to private operators for competition with effect from January 1, 2000. [NTP1999](#) stipulated that the terms and conditions, and other modalities connected with this matter would be worked out in consultation with the TRAI. Accordingly, references were made to the TRAI by the Government in May/ June 1999, seeking TRAI's recommendations on the scope of the service; service area; number of long distance operators; license fee structure; selection criteria for the service providers; and terms and conditions for the usage of the existing backbone networks of the public and private utilities for NLD communications.

3. On the basis of the study commissioned by the TRAI, a Consultation Paper was released on 16.7.99 with a view to eliciting comments from service providers, prospective licensees for national long distance service, DOT, Infrastructure Providers, Financial Institutions, consumers, and other stakeholders. The comments received in response to the Consultation Paper, and emerging options based on inputs gathered during the Open- House Sessions were further debated in

consultations with the Financial Institutions/ Banks and with a Group of Eminent Experts. The Recommendations spelt out herein after have been formulated on the basis of these consultations and keeping in view the perspective envisaged by the [NTP 1999](#).

4. Various terms and concepts used in this document are described in the Explanatory Memorandum and the Consultation Paper appended to these Recommendations. Some of the important terms relevant in the context of these recommendations have been explained in Appendix A for the purposes of clarity.

Recommendations of the TRAI

5. Based on extensive deliberations in the Authority and for the reasons spelt out in details in the Explanatory Memorandum, TRAI makes the following recommendations to the Government on the modalities for opening up national long distance communications.

Scope of NLD Service

6. A nationwide long distance network connecting different local areas is defined as the **National Long Distance Network**. NLD service is a switched bearer service providing for carriage of various tele-services over long distances. NLD service provider is, therefore, required to provide the necessary digital capacity to carry long distance telecommunication services including the domestic portion of international calls, which may include various types of tele-services defined by the ITU, such as voice, data, fax, text, video and multi-media etc. An NLD service provider may also offer bandwidth on lease to others.

Service Area of Operation

7. The licenses for NLD communications should be issued only at the national level. The service area of operation of NLD service provider would be the entire geographical limits of India. Carriage of intra-circle long distance traffic by NLD service providers would also be permitted.

8. It would be open to the existing Fixed Service Providers (FSP) and Cellular Mobile Service Providers (CMSP) to seek an NLD license as a separate legal entity. This will provide them the advantage as a consortium to interconnect their networks across Circle boundaries to provide NLD services.

9. Access Providers in the Circles would continue to carry the long distance traffic of their respective subscribers, within their service areas, as admissible under the extant License Agreements. FSP should also be given the facility of providing intra-circle long distance service to subscribers of other FSPs, within their service area, by suitably amending their license conditions.

Competition

10. There should be free competition with open entry (without any restriction on specific number of new entrants) subject to pre-qualification (as per Selection Criteria) and performance obligation (as per Network Rollout Plan) separately detailed herein. This recommendation is based on the majority decision (6:1) of the Authority.

11. Mr. R.R.N. Prasad, Member, TRAI has recommended an oligopoly structure for the NLD market for the first five to seven years in stead of free competition; restricting the total number of NLD service providers to 3 including the Department of Telecom Services (DTS). His view is contained in [Appendix B1](#). The reasons for the majority view are also enclosed at [Appendix-B 2](#).

Mode of competition

12. Facilities-based competition in the provision of NLD service is recommended in the initial phase of the DLD market liberalization. The competition generated through such facilities-based carriers would encourage build up of telecommunication infrastructure and ensure optimization in expansion of network and efficiency of operations. NLD service provider may, however, exercise any of the following options or a combination thereof:

- i. **Build its infrastructure.**
- ii. **Buy and/ or lease the infrastructure from Infrastructure Providers.**
- iii. **Buy and/ or lease bandwidth from Infrastructure Providers.**

13. The concept of non-facilities based competition often entails making it mandatory for the incumbent to lease out bandwidth and switch capacity to the new entrants who resell the same for providing services to the customers. This clearly does not appear to be the intention of the NTP 1999.

Resale

14. NTP 1999 envisages that Resale would be permitted for domestic telephony. Keeping in view its inherent competitive advantage, Resale of NLD services is relevant in the Indian context in the longer term when the market matures. TRAI, therefore, recommends that Resale of NLD services may be introduced only after 3 to 4 years of the opening up of the market.

Infrastructure FACILITIES

15. Open competition with free entry is also recommended in the provision of infrastructure as it would stimulate rapid creation of facilities at different levels and in ensuring availability of backbone facilities to all service providers.

16. The need for registration or issuing a formal license for the provision of backbone/ infrastructure has been examined. It is proposed that **Infrastructure Providers may be classified into two categories as under:**

- a. **Category I:** This would cover Infrastructure Providers who wish to provide assets such as dark fibres, right of way, duct space, towers and buildings etc.
- b. **Category II:** This would cover Infrastructure Providers who make available end-to-end bandwidth.

17. Keeping in view the provisions of the Indian Telegraph Act 1885, **no formal license is required for Category I Infrastructure Providers.** These entities may simply be required to register with an appropriate authority. **Category II Infrastructure Providers may be licensed on simple terms and conditions,** a format for which will be recommended by the TRAI separately. **No Entry Fee should be levied on Category II Infrastructure Providers. They may, however, be required to pay an annual license fee not exceeding 5 per cent of their revenues derived from leasing of bandwidth, as also contributing towards universal access levy or any other charge,** as may be determined by the competent authority, on the same pattern as that for NLD service providers.

18. Leased line charges for NLD service providers will be regulated separately by the TRAI.

19. There should also be no restriction on infrastructure owners (including utilities) in becoming NLD service providers if they so wish, provided they do so through a structurally separate licensed legal entity. It would offer incentive in encouraging utilities to further invest in consolidating, expanding and undertaking technology up-gradation of infrastructure.

20. A question may arise about whether the present definition of service provider in the TRAI Act 1997 will include Category II Infrastructure Providers for the purpose of regulation. In order to remove any ambiguity in this regard, the TRAI Act 1997 may be suitably amended.

LICENSE FEE STRUCTURE

ENTRY FEE

21. For the reasons detailed in the Explanatory Memorandum, **one-time Entry Fee may be fixed at Rs. 500 crore to keep out non-serious players.** A portion of the entry fee i.e. Rs. 100 crore should be recovered in cash, which would be **non-refundable.** The balance entry fee of Rs.400 crore would be in the shape of a refundable deposit to be used as an incentive to ensure timely roll out of the network during the initial three phases extending upto first four years from the effective date of the license. The applicant-licensee may securitize this amount of

Entry Fee in the shape of Bank Guarantees (BG) or as investment in Tax Free Government Bonds with Licensor's lien on the bonds. The BG or the Bonds (along with accrued interest) should be released, as under, in favour of the licensee subject to phased completion of the network roll out:

Completion of Phase I Rs. 100 crore

Completion of Phase II Rs. 100 crore

Completion of Phase III Rs. 200 crore

22. Any shortfall below the percentage of network coverage for Phases I, II & III, as stipulated in Para 39, would result in forfeiture of the right for incentive relatable to that Phase. There would be no carry forward of the incentive from one phase to the next phase.

23. The above recommendation is based on the majority decision (6:1) of the Authority. Mr. R.R.N. Prasad, Member, TRAI has recommended that under the restricted competition suggested by him, Entry Fee for the two new entrants should be the highest bid amount as per competitive bids, which the second highest bidder should be asked to match to be eligible to enter the market. His view is contained in [Appendix B1](#). The reasons for the majority view have been discussed in the note enclosed at [Appendix B2](#).

REVENUE SHARE

24. Apart from the entry fee, NLD service provider would be liable to pay annual license fee as a percentage of its revenue. Since NLD service provider would also be required to contribute separately towards universal access levy, the Authority feels that the quantum of license fee should be restricted to cover the expenses of DOT and TRAI in issuing, administering, enforcing and regulating the licenses for NLD service as well as for contribution to sector development through research and studies. However, keeping in view the need to strengthen the organizations dealing with licensing related functions and sector specific R&D, the Authority recognizes the need to collect revenue share as annual fee in excess of the current indicative costs of the DOT Secretariat and TRAI. **The Authority recommends that the revenue sharing percentage should not exceed five percent of the Licensee's Revenue, as defined later.** Having stated so, the Authority is of the view that the Government, keeping in view the overall national requirement, may consider levy of a differential Service Tax on NLD service in addition to the annual license fee.

25. The aforementioned recommendation of the Authority is based on the views of Justice S.S. Sodhi, Mr. B.K. Zutshi, Mr. N.S. Ramachandran and Mr. M. Ravindra for the reasons given in the Explanatory Memorandum. However, the other three Members comprising of Mr. U.P. Singh, Mr. Arun Sinha and Mr.

R.R.N. Prasad hold the view that the license fee incidence as a revenue share should be 16 per cent of the adjusted gross Revenue (which is the same as **Revenue** defined below). Their view is contained in [Appendix C 1](#). The reasons for the majority decision have been discussed in the Explanatory Memorandum and are also reflected in [Appendix C 2](#).

26. The aforementioned revenue sharing percentage is exclusive of the contribution towards universal access levy or any other charge towards meeting universal service obligation as may be prescribed by the competent Authority from time to time.

REVENUE

27. "Revenue" for the purpose of levying license fee as a percentage of revenue sharing shall mean the Gross Revenue accruing to the licensee by way of operations of providing NLD service mandated under the license (including the revenue on account of supplementary/ value added services and leasing of infrastructure), as reduced by the charges payable to other service providers to whose networks the NLD network is interconnected for carriage of calls. On this principle, there would be no double counting of telecommunication service related turnover for the purposes of license fee under revenue sharing arrangement in the hands of different service providers.

28. In case of category –II infrastructure providers, as mentioned in Para 17 above, the revenue for license fee purposes would be that derived from bandwidth lease charges.

29. Taxes paid on the provision of service and contributions towards universal access levy or any other charge for meeting universal service obligation shall also be excluded.

MODALITIES FOR PAYMENT OF LICENSE FEE

30. Entry Fee shall be paid in advance before signing the License Agreement.

31. Annual license fee under the Revenue Sharing arrangement shall be payable in four quarterly installments during the financial year. Each quarterly installment shall be paid in advance within 15 days of the commencement of the first calendar month of that quarter. The year for the purpose of license fee shall be the financial year ending 31st March. License fee for each quarter shall be paid provisionally by the Licensee on self-estimation of the Revenue for that quarter. Final adjustment of the license fee for the financial year shall be made on or before 30th June of the following year based on Revenue figures duly certified by the Chartered Accountant engaged by the Licensee for auditing the Annual Accounts of the Licensee company.

32. Licensor/ TRAI may prescribe formats for the Maintenance of Accounts and furnishing of periodic accounting statements that enable the verification of declared Revenue.

33. Licensor shall have the right to scrutinize the books of accounts of the Licensee for verifying the correctness of the reported revenue, and to seek verification statements through an independent Auditor on the declared Revenue and its conformity with the prescribed revenue concept.

34. Any delay in payment of license fee beyond the stipulated period will attract interest at the Prime Lending Rate (PLR) of State Bank of India as notified from time to time and further increased by two percent per annum. The interest shall be compounded monthly at the rate(s) applicable for the period (s) of default. A part of the month shall be reckoned as a full month for the purposes of calculation of interest.

35. While progressive quarterly payments are likely to be at variance with reference to the final liability based on audited accounts, these payments should be as accurate as possible. Any under statement of interim quarterly payments beyond twenty- percent of the final calculation may attract a penalty (not exceeding the amount of short payment) in case the Licensee fails to show that the under statement was not deliberate and that the projections were reasonable as per the then obtaining circumstances.

LICENSE PERIOD

36. The license for the provision of NLD service should be awarded for an initial period of 20 years from the effective date. The license would be extendable by additional periods of 10 years thereafter.

Selection Criterion

37. In the situation of free and full competition, tendering or bidding process would not be relevant. Licenses could be made available to all applicants subject to, interalia, the **following selection criteria** and payment of Entry Fee:

- a. Submission of a Blue print delineating the construction of the transmission and switching network including the technologies, products proposed to be used, and tied-up Right of Way, if any.
- b. Roll out plan indicating the Circle wise extent of roll out in three phases for national coverage.
- c. Proposals for coverage of uneconomic and isolated areas.
- d. Indicative Business Plan along with the funding arrangement for financing the project.

- e. Financial soundness of the applicant with the stipulation that the combined Net worth of all the co-promoters of the Joint Venture should be at least Rs. 2500 crore.
- f. Experience in telecom sector.

38. The above recommendation is based on the majority decision (6:1) of the Authority. Mr. R.R.N. Prasad, Member, TRAI is of the view that under the oligopoly structure suggested by him, the selection of the two new entrants should be based on a transparent process of competitive bidding after a pre-qualification round to weed out non-serious players.

OTHER TERMS AND CONDITIONS

39. The other terms and conditions of the License Agreement should be in accordance with draft License Agreement for NLD service prepared by the TRAI, which is enclosed at **Appendix D** to this Memorandum.

Network Roll Out PLAN

40. Necessary wherewithals will have to be arranged by the NLD service provider to pick up the long distance traffic from subscribers in the Long Distance Charging Areas (LDCA). Coverage of relatively unattractive regions and isolated areas from the commercial point of view have been addressed in Para 41 and have not been left entirely to market forces.

41. The licensee should submit Circle wise network roll out plan for national coverage. The first three phases should be completed within a period not exceeding four years. The phased roll out plan must ensure minimum network coverage as under:

| Phase | Time period for completion From zero date (i.e. the effective date of license) | Cumulative Percentage of national coverage in terms of Points of Presence required at the end of each Phase | |
|-------|--|---|--|
| | | Total LDCAs | Coverage out of all the Uneconomic/ Remote areas to be included while establishing PoPs in LDCAs |
| I | 2 years | 15 % | 2 % |
| II | 3 years | 40 % | 4 % |
| III | 4 years | 80 % | 7 % |
| Iv | 5 – 7 years | 100 % | All |

42. In other words, the licensee would be required to provide at least 80 percent of the national coverage within a period of four years from the effective date of the license. This would include coverage of uneconomic/ remote areas at least to the extent of 7 per cent of the national coverage within the first four years. Timely completion of the first three Phases would entitle the licensee to incentive in the shape of refund of Entry Fee as stipulated in Para 21 above.

43. At present, there are 321 LDCAs in the country. NLD licensee may also be required to provide a similar infrastructure for complete national coverage. Appreciating the difficulties on account of high/ unviable capital costs that the licensee may have to incur to reach every remote corner of the country for accomplishing cent percent national coverage, the Authority recommends that the roll out obligation of an NLD service provider may be restricted to about 80%

of the national coverage during the first four years including the coverage of about seven per cent of uneconomic/ remote areas. This implies the roll out obligation of establishing POPs in about 300 LDCAs during the first four years.

44. Network roll- out should be completed in four phases extending over a period of five to seven years from the effective date of license including therein the coverage of all identified uneconomic/ remote areas. The licensee should submit a detailed Circle wise coverage plan.

45. Remote/ uneconomic areas may be identified by the licensor on the basis of some objective criteria before the issue of license.

46. Once a Point of Presence is established and service opened, the NLD service provider shall be bound to accept long distance calls for all destinations including international calls up to the VSNL gateways, and take all necessary steps to ensure delivery of such calls (excluding international calls) at the terminating end. Revenue sharing and regulatory issues involved in transmitting national and international calls shall be separately addressed by the TRAI.

ACCESS ARRANGEMENTS

47. Suitable access arrangements shall be made available to NLD service providers by Access Providers. Carrier Access Codes (CAC) should be notified having dialing parity with Access Providers in conformity with the National Numbering Plan. It should be used to identify a long distance carrier by a customer of any AP in order to promote free choice and equal ease of access (EEA).

48. The technical arrangements for choosing an NLD service provider by dialing a CAC or pre-selection shall be made by all Access Providers (AP). Such arrangements should be made by APs in consultation with NLD service provider before commissioning NLD service and should form part of an interconnect agreement. In case the facility of carrier pre-selection needs extended time, the APs must ensure its provision preferably within a period of three years.

49. It would be desirable that a technical group consisting of representatives of DOT, DTS and other APs, under the aegis of TRAI, is assigned the task of devising a scheme for dialing- access to different NLDOs and APs. The objective should be to formulate a suitable scheme of access codes of uniform number of digits for the NLD service providers and APs with adequate provision for additional players at a later date. The group may also supervise arrangements for introduction of pre-selection and for an inter-carrier charge billing system.

STD PCOs

50. The franchising and operation of STD- PCOs should continue to be the domain of Access Providers. NLD service providers should not be permitted to by-pass Access Providers for setting up STD-PCOs.

51. Access Providers will ensure that on each STD-PCO, the subscriber is given the choice of selecting any NLD service provider operating in that area for carriage of his long distance traffic. Suitable revenue sharing arrangements should be negotiated between Access Providers and NLD service providers subject to Orders/ Regulations of the TRAI.

BILLING SERVICES

52. Access Providers may provide billing services to NLD service providers on reasonable terms, which may be negotiated mutually. This would provide convenience to consumers by way of a consolidated bill for their local/ long distance services.

53. APs and NLD service providers must also ensure that devices conforming to CCS7 signaling system are deployed to generate adequate Call Data Records (CDR) for efficient inter-carrier settlements under a multi-operator environment.

LEVEL PLAYING FIELD BETWEEN THE INCUMBENT AND NEW ENTRANTS

54. Private sector entry into the national long distance telecom sector has to be on the basis of a level playing field between them and the incumbent monopoly, DTS. This means participation by new entrants in this market on the same terms as available to the DTS, not only on *de jure* but also on *de facto* basis. Given the market power of the incumbent, its ubiquity and its present structure of being an access provider also, a level playing field between them can best be brought about with structural separation of the long distance segment of the DTS, to be run as a separate corporation. This may also be in the interests of the incumbent itself in the longer term as competition takes hold. The Authority, therefore, recommends that this separation should be made as a part of the restructuring process of the DTS into a Corporate entity. The very minimum requirement in this regard is the complete accounting separations.

55. Entry fee and license fee payable by a new entrant, as decided by the Government, would also be payable by the DTS on same terms and conditions.

TARIFF RE-BALANCING

56. At the end of the TRAI's current tariff re-balancing program, ending in March 2001, tariffs will continue to remain unbalanced i.e. the long distance rates will continue to be much above costs. For effective and meaningful competition in the long distance segment, which will benefit the consumers, further re-balancing will be necessary. It is the intention of the TRAI to do so either by direct intervention or through market driven means. This has to be made known to potential investors.

INTERCONNECTION

57. For effective implementation of a multi-carrier environment, new entrant in NLD service has to get access to end-users and vice-versa. As proposed in NTP 1999, it shall be mandatory on all Access Providers to provide interconnection to NLD service providers so that the subscribers could have the choice to make long distance calls through any NLD service provider. NLD service providers must, therefore, be provided reasonable and cost-based access to existing networks.

58. Appropriate Regulations/ directives in the areas covering carrier pre-selection or dial around, interconnection charges and revenue sharing arrangements, access and carriage charge, numbering plan and conformance with technical standards would be required along with unbundling of local and intra-circle long distance services by the existing APs. TRAI is already engaged in a separate exercise of formulating a Model Framework for Interconnection, which is expected to be in position before the new NLD licensees commencing their operations.

59. The service providers would negotiate their interconnection agreements, which would be subject to review and intervention by the TRAI in case of lack of agreement within sixty days. Each NLD service provider will have the right to interconnect with DTS and/or other service providers following the principles of non-discrimination, transparency, timeliness, mandatory interconnection at any technically feasible point in the network, unbundling of the elements of the network, and cost based charges. The arrangements should ensure a cost-effective seamless national network. These principles have already been enunciated by the TRAI.

60. Steps need to be taken by the operators to commission an inter-carrier charge billing system for accurate and timely settlement of carriage/ usage charges.

UNIVERSAL SERVICE OBLIGATION

61. NLD service providers would be required to contribute towards universal access levy or any other such charge as may be determined by the Government in consultation with the TRAI from time to time.

RIGHT OF WAY

62. Every infrastructure provider and NLD service provider should have access to Right of Way on a non-discriminatory basis at par with DOT/ DTS. Streamlining of procedures and reasonableness of charges levied by different authorities for obtaining ROW should be sorted out by the Licensor to minimize avoidable delays in network roll out on this count, if necessary by amending the Indian Telegraph Act 1885.

DISPUTE RESOLUTION

63. In the context of expeditious, cost effective and independent dispute resolution on issues arising from or in connection with the terms and conditions of a license, this Authority recommends an amendment to the TRAI Act 1997 to confer on the TRAI powers of dispute settlement.

EXPLANATORY MEMORANDUM TO RECOMMENDATIONS OF THE TRAI ON INTRODUCTION OF COMPETITION IN NATIONAL LONG DISTANCE COMMUNICATIONS EXPLANATORY MEMORANDUM

1. This Memorandum provides the background and the rationale for the recommendations made by the Telecom Regulatory Authority of India (TRAI) on the modalities for introducing competition in national long distance communications. It explains the consultative process that has gone into framing these recommendations, the issues raised for the public debate, the comments received and an analysis of the options that emerged in the context of arriving at these recommendations.

BACKGROUND

2. Opening up of national long distance service beyond the service area in the year 1999 was one of the commitments made by India during the negotiations on Basic Telecommunications under the General Agreement on Trade in Services (GATS) in the World Trade Organisation (WTO). In pursuance thereof and in the light of the relevant provisions of the TRAI Act, 1997, the Authority decided (in June 1998) to commission a study on the introduction of competition in the

national long distance communications with a view to making recommendations to the Government in the matter. The Terms of Reference of the study were formulated in consultation with the Department of Telecommunications (DOT).

NEW TELECOM POLICY, 1999

3. In the meanwhile, the New Telecom Policy (NTP) 1999 was announced (in March 1999) by the Government which, inter-alia, envisaged opening up of the "National Long Distance Service" beyond service area to private operators for competition with effect from January 1, 2000. In this context, the NTP 1999 contemplates the following:

- a. All National Long Distance Operators (NLDOs) should be able to access subscribers. This would promote setting up of long distance bandwidth capacity in the country, provide a choice to consumers and promote competition.
- b. In order to achieve the above, it shall be mandatory for all access providers to provide interconnection to the NLDOs resulting in choice for subscribers to make long distance calls through any operator.
- c. The terms and conditions, and other modalities for this purpose would be worked out in consultation with the TRAI.
- d. Usage of the existing backbone network of public and private transmission companies/Railways/GAIL, ONGC etc. shall be allowed immediately for NLD data communication and with effect from January 1, 2000 for NLD voice communication.
- e. Resale for domestic telephony would be permitted. Modalities thereof shall be announced along with the opening up of NLD.
- f. Interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI as a part of the structure for opening up of NLD.

REFERENCE TO TRAI

4. References were made to the TRAI by the Government in May/ June 1999, seeking TRAI's recommendations on modalities for opening up of the NLD communications with a specific reference to the following: -

- a. Scope of the service;
- b. The service area;
- c. The number of Long Distance Operators;
- d. License fee structure;
- e. Selection criteria for the service providers;

- f. Terms and conditions for the usage of the existing backbone networks of the public and private power transmission companies, Railways, GAIL, ONGC etc. for NLD communications.

VISION ENVISAGED

5. Ntp 1999 envisages choice to subscribers for making national long distance (NLD) calls through any operator. The modalities for opening up NLD communications to competition should, therefore, ensure that at the end of a reasonable period (say, 4-5 years), every subscriber in India has the choice to select the NLD operator for carriage of his/ her long distance calls. In order to achieve this objective, it would be necessary to provide a framework, which ensures that the licensees have adequate resources and capabilities to build a nationwide network to establish a widespread competitive presence. New entrants should commit roll- out plans for creating the requisite infrastructure by providing adequate 'Points of Presence' to facilitate national coverage over a phased period. An operator supplying NLD service to a subscriber should ensure that with the commencement of service at any station it has arrangements in place to pick up calls from that area for all destinations irrespective of its point of presence at the terminating end. Interconnection arrangements should be such as to facilitate interconnectivity among service providers and with the incumbent. Suitable numbering plan arrangements to provide dial around facility to subscribers to enable them to select the NLD service provider of their choice on a dynamic basis would need to be put in place. Degree of market penetration by each NLD service provider and drop in prices would provide the index for monitoring the success of competition. **TRAI's Recommendations on modalities of opening up of NLD service have been formulated in this backdrop.**

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CONSULTATIVE PROCESS

6. Based on the study commissioned by the TRAI, a Consultation Paper was released on 16.7.99 with a view to eliciting comments from all service providers, prospective NLD operators, infrastructure providers, consumers, DOT and other stakeholders. A large number of written comments were received on substantive and related issues, which included the scope of service, area of operation, type of competition, degree of competition, carrier access mode, resale, infrastructure related issues, selection criteria, and other aspects relevant to implementation of competition in the domestic long distance segment. Gist of the comments was compiled in the document titled "Summary of Comments". Based on these written comments, a "Synopsis of Emerging Options" was framed.

7. Further consultations were held on relevant issues at Delhi, Mumbai, Calcutta, Chennai, Bangalore and Hyderabad during 13–29 September 1999. Additional points that emerged during the Open - House Sessions were also summarized. Options emerging, as a result of these consultations, were then discussed with the leading Financial Institutions/ Banks (on 22.10.99) as well as with a Group of Eminent Experts (on 28.10.99) in meetings held at New Delhi. **All such inputs have been taken into consideration while framing these recommendations in line with the policy framework envisaged by NTP'99.**

TRAI's STUDY

8. Study undertaken by TRAI for the preparation of the Consultation Paper analysed traffic data to estimate the market size for developing a viability analysis for new entrants. During the initial discussions it was felt that the traffic information/ data from all the Circles should be obtained. Subsequently, during detailed discussions with DOT, it was decided to develop the analysis on a sample comprising 40 major traffic cities. The cities were selected on the basis of their commercial and geographical importance covering major routes. These 40 cities accounted for 54% of the total Direct Exchange Lines (DELs) in the country covering 9.5 million subscribers as of 31.3.98 with 60% of the total Trunk-Exchange (TAX) capacity in the country. This traffic data was then used to develop trends for building up the traffic distribution model. **The analysis was based on certain assumptions, which are always necessary for a study of this nature for quantification of the projections and for developing trends to understand implications of different policy options.**

9. The analysis projected the average intra-circle traffic at 67% of the total originating NLD traffic. Intra-regional traffic was 81% of the total originating NLD traffic, indicating thereby a higher level of traffic flow to nearby states. Inter-regional traffic was estimated at only 19% of the total originating NLD traffic.

10. Sample data ratios for the 40-city traffic-model were extended to estimate total NLD traffic distribution in the country. Level 2 Trunk Automatic Exchange (TAX) sample city ratio of traffic originating per DEL was applied to the remaining DELs not represented in the sample. Making certain assumptions as detailed in the Consultation Paper, traffic volume (in Erlangs) was quantified and converted into million minutes. On this basis, NLD market size for 1998-99 was estimated as under:

| | Traffic (Erlangs) | Traffic (Minutes) | Revenue (Rs. crore) |
|---------------------|-------------------|-------------------|---------------------|
| Inter-Circle | 46,709 | 6.7 billion | 6,746 |
| Intra-Circle | 1,40,443 | 20.2 billion | 5,695 |
| Total | 1,87,152 | 26.9 billion | 12,441 |

11. The data was further used to estimate the potential NLD market size by making certain assumptions in regard to tariffs and traffic flows over a period of five years. The conclusions so derived from the analysis were subjected to sensitivity with factors such as market share, tariff discount, interconnection charge and build/ lease options. The details of the analysis can be seen in Chapter- 3 of the Consultation Paper ².

12. On the compounded average growth rate (CAGR) of DELs during the period 1993-98 for each state, number of DELs for the years 2002 and 2005 were estimated. The figure was further normalised to take into account higher NLD traffic per subscriber in comparison to the year 1999 due to price elasticity of demand. Traffic growth on account of development of new applications such as E-commerce, tele-medicine and tele-education, and migration of voice traffic to data or converged networks were also taken into consideration apart from the likely reduction in voice traffic due to the impact of internet telephony. On these assumptions, future traffic and revenue estimates emerged as under:

| | FY 2001-02 | % increase p.a. 1999-02 | FY 2004-05 | % increase p.a. 2002-05 |
|-----------------------|------------|-------------------------------|------------|-------------------------------|
| Traffic (erlangs) | 372,070 | 25 | 594,720 | 17 |
| Revenue (Rs.crore) | 15,105 | 6.5 | 23,916 | 16.5 |

13. Above figures indicate the approximate size of the cake in the market segment of NLD communications at the national level. Making additional assumptions, sensitivity analysis was undertaken in the Consultation Paper at market share for the new entrant at 10% and 15% of the total market size to estimate the investment and profitability levels. In fact, the rapid growth in the number of cellular mobile telephones would also result in further increase in the number of DELs, contributing significantly towards the long distance traffic.

COMPETITION IN NLD MARKET

14. The Indian Telegraph Act 1885 gave the Government a monopoly over telecommunications. This monopoly is now being replaced by competition in telecommunications under a multi operator environment. Such an environment will attract investment in the sector and will enable build up of a world class communication infrastructure.

15. The principles and objectives of competition policy are relevant in examining the options for opening up the national long distance market. It is an accepted fact that competitive aspect of telecommunication services, which facilitates planning and operational decisions to be driven primarily by market based forces is expected to yield a more efficient overall gain in comparison to a monopolistic, centralized market structure. Benefits expected to accrue as a result of competition in NLD market include faster development of network resources, as competitors rush to establish a market presence especially where current service levels may be inadequate. Apart from reduced costs of operations through more efficient initiatives, higher quality of service to consumers is expected as new entrants deploy latest technologies to create advantages over incumbent, and as the incumbent reacts to the situation by bringing in increased efficiency and upgrading its infrastructure to avoid loss of consumers. The drive to mobilize consumer base results in technical innovations in terms of service offers for different types of services at competitive prices. It also provides the choice to consumer to select a NLD service provider.

SCOPE OF DLD SERVICE

16. A long distance network would require transmission and switching elements connected in a pre-determined fashion to provide switched bearer interconnection between various local areas. A call terminating in a local area other than in which it was originated is called a long distance call. Carriage of a long distance call is the licensed function of a NLD service provider. It is possible that under the tariff pattern, a long distance call may be charged at the rate of a local call for various considerations. It is the 'carriage' and not the 'charge' which is relevant for determining the classification of a long distance call.

17. NLD service would cover the carriage of switched bearer service providing for carriage of various tele-services over long distances. NLD service provider is, therefore, required to provide the necessary digital capacity to carry long distance telecommunication services including the domestic portion of international calls, which may include various types of tele-services defined by the ITU, such as voice, data, fax, text, video and multi-media etc. An NLD service provider may also offer bandwidth on lease to others.

MARKET STRUCTURE

SERVICE AREA OF OPERATION

18. While licensing new long distance service providers, it is essential to delineate the criteria for operations and details of responsibilities so that it is ensured that the authorized new entrant has sufficient resources and capabilities to build a nation wide network and establish a widespread competitive presence.

19. As stated earlier, data analyzed in the Consultation Paper projects average intra-circle traffic at 67 percent of the total originating NLD traffic. Intra- regional traffic was 81 percent of the total originating NLD traffic. Inter-regional traffic was estimated at only 19 percent of the total originating traffic.

20. In the context of the service area of operation, it is necessary to understand the network set up of various players in the field. DTS is today the incumbent fixed service provider (or access provider) and also the monopoly long distance carrier at the national level with a countrywide network. Its set up relevant for NLD communications comprises of 321 Secondary Switching Areas (SSA) or Long Distance Charging Areas (LDCA), and around 2550 Short Distance Charging Areas (SDCA).

21. There were 24869 Telephone Exchanges of the DOT as on 31.3.99. Each taluk is considered an SDCA, which may have local exchanges in various cities/ villages within the taluk. These exchanges are connected to a Tandem Exchange at the taluk headquarters, which in turn is connected to Level-2 Trunk Automatic Exchange (TAX) in the SSA. The SSA/LDCA is generally co-terminus with a revenue district.

22. In each SSA there is at least one TAX. Some districts have multiple TAXs. There were 379 TAXs in the country (as on 31.3.98), categorized as Level-1 (Primary) and Level-2 (Secondary) TAXs as per DOT's network hierarchy. It included 21 Level –1 TAXs, each directly connected to all the other Level-1 TAXs. The Level-1 TAXs represent high traffic centres and there is generally one Level-1 TAX in each State. Level-2 TAXs are by and large connected to Level-1 TAXs of their State. However, Level-2 TAX of a State may also be connected to Level-2 TAX of another State if the traffic so justifies.

Circle Level of NLD Operations

23. Apart from the DTS, Fixed Service Providers (FSP) have already been licensed in 6 Circles for the provision of basic telephone service. NTP 99 envisages entry of Multiple operators for a period of five years for the service areas where no licenses have been issued. FSPs will have exchanges at various places while interconnecting different cities within their service area. As per the extant policy, FSP is allowed to carry its long distance traffic within the service area.

24. CMSPs also carry long distance calls within their service area. They may register their subscribers on city basis and charge additionally for the long distance component whenever a call is carried from one city to another city on the mobile network.

25. It is understandable that FSPs and CMSPs having their infrastructure built up to carry intra-circle traffic would like to continue with this business opportunity. The existing license conditions permit these service providers to carry only their own long distance traffic within the service area. In case intra-circle long distance traffic is to remain the exclusive domain of FSPs and CMSPs of that service area, consumers will have no choice of a long distance operator, as these service providers can not carry each other's traffic. This arrangement would be contrary to the framework envisaged in the NTP 1999. Further, these service providers have yet to be permitted to interconnect with each other for sharing of infrastructure within the service area, as proposed in NTP 99. Even when the same is authorised, FSPs/ CMSPs would still not get the right to carry intra-circle long distance traffic of each other's subscribers. In its comments, DOT has also favored the scope of service of an NLD service provider to include intra-circle traffic as well. DOT is of the view that there would otherwise be practical difficulties at the network level in distinguishing between intra-circle and inter-circle calls, and complexity in dialing may overload the processors and systems.

26. It has, therefore, emerged from the deliberations that FSPs and CMSPs may continue to offer to their subscribers the facility to carry intra-circle long distance traffic as currently permitted under their licenses. However, there would be no exclusivity to them for the carriage of such intra-circle traffic, which would also form a part of the service area of operation of NLD service providers.

27. Any negative impact in the short term on intra-circle long distance revenue of existing FSPs, to the extent of meeting the universal service obligation, may be compensated through universal access levy till such time the tariff re-balancing is completed. Its impact would also be taken into consideration in the separate exercise underway in the TRAI on quantification of revenue sharing percentage for FSPs under the migration to NTP 1999. However, in the medium to long term, it is expected to have a positive impact with enhanced usage by subscribers due to reduced tariffs on account of competition among multiple players. Price elasticity of demand with reference to NLD traffic is expected to be high and with more players interconnecting with each other, the existing reach of FSPs would get extended. In order to alleviate hardship to the FSPs, the Authority is of the view that an FSP in the Circle may also be given the facility of providing intra-circle long distance service to subscribers of other FSPs within that service area by suitably amending their license conditions.

Regional Level of NLD Operations

28. NTP 1999 states that inter-connectivity between service providers in different service areas would be reviewed along with the NLD policy. Such connectivity over borders is essentially intended to convey inter-circle NLD traffic. Thus, given the large intra-regional traffic (81% of the total originating NLD traffic) over areas which largely fall within the Community of Interest (COI), new NLD entrants may prefer to line up for establishing regional networks (requiring much lower investments) than going in for nation wide operations. In that event, efforts to build up alternate national network may not attract enough investment in view of reduced viability of operations. Opening up NLD market at the regional level would also mean a large number of regional players with long distance calls carried over a number of networks posing problems in regard to sharing of revenues among such multi-carriers especially in the absence of CCS 7 signal facility all over. It would also result in a fragmented market.

National Level of NLD Operations

29. Multiple tier configurations with national, regional and/ or circle level NLD licenses may not offer optimum solutions from the standpoint of strengthening the national infrastructure. A general consensus has emerged that only national level licensing would ensure adequate build up of infrastructure across the country for providing an alternative to the DOT, and in turn meeting the objectives envisaged in the NTP 1999. Substantial investment that is required in establishing the business as an NLD service provider would itself limit the number of new entrants.

30. It is likely that the existing Access Providers may also interconnect the networks across their respective borders to provide inter-circle NLD service. They would, however, be required to form a separate legal entity (as a consortium) and obtain an NLD license for the provision of the national long distance service. They will obviously get a head start over others in terms of early service roll out on their

interconnected networks. They will, however, have to satisfy the eligibility criteria in full, and without any preferential treatment.

31. Once the NLD service provider has established its Point of Presence (POP) within a particular LDCA, the NLD service provider will have to make arrangements to take over the call, on the basis of consumer choice, from the Access Provider (AP) beyond its local area and deliver it at the destination regardless of its own network. For this purpose, the NLD service provider may also make suitable arrangements with other service providers for pick up and delivery of such calls.

32. Only national level NLD license is, therefore, recommended instead of regional and/or circle level licenses. It would enable the creation of a nation wide backbone alternate to the DOT's network and permit service providers to have operational flexibility in the initial stages.

EXTENT OF COMPETITION

33. Main options for introducing competition in NLD communications include duopoly or oligopoly, and open competition (with no restriction on specific numbers). Each of these options has its advantages and disadvantages, which have to be analyzed in the context of Government policy of expeditious development of this sector.

DUOPOLY/ OLIGOPOLY

34. Duopoly would mean the licensing of a single large NLD service provider to provide the full range of NLD service, in competition with DOT, throughout the country. Oligopoly is a variation of this idea, which authorizes 2 to 3 such competitors under restricted competition. It would mean that the new licensee has sufficient resources and expertise to establish a nation wide network with a wide spread competitive presence. This arrangement perhaps helps in avoiding the inter-operator complexities associated with such opening up till the market matures to absorb more players.

35. In a duopoly or oligopoly situation, the area of operations and responsibilities on the new entrant would be somewhat similar to that of Department of Telecom Services (DTS). In such a situation, if the new NLD service provider delivers in terms of a nation wide network with competitive presence and all the market forces operate properly, the resultant market may gravitate towards a fairly even split of long distance revenues and consumers. The prices would also be somewhat similar but lower than they would have been under a continued DTS monopoly, and with increased attention to customer service and market innovation.

36. Duopoly/ Oligopoly appears to offer relatively simpler model whose effects are open to quick scrutiny based upon market performance. This structure may also require reduced monitoring and intervention once the second carrier achieves a

level of operation to assure its long-term viability. However, from the viewpoint of licensing, the Licensor has to undertake an extensive process of concession-authorising. There are, however, significant risks with this option as many of the expected benefits of competition could be reduced or lost if the market structure does not conform to the expectations. The new entrant must accomplish a broad market presence, rather than concentrating on high volume niche markets (offering quick profits) at the cost of national coverage. In a duopoly situation, the competition between the incumbent and the alternate carrier may often not be truly market-driven, tending to involve some degree of collusion, cartelisation or unrestrained duopolistic market sharing. As per experience, such practices are very difficult to detect and prevent in the real world. It may also be difficult to measure the duopoly produced efficiency gains (or lack thereof). Improvements, efficiency, technical and market innovations, and cost savings tend to get reduced once the alternate licensee has established its own market presence. In fact many of the ills of monopoly could simply reappear in a duopoly situation.

OPEN COMPETITION

37. Open competition is based on the fundamental tenet of the market economy, which encourages entrepreneurs and investors to invest as much as they desire, and to test the market according to their best evaluation of the opportunities. It is not necessary to control and restrict investment in to NLD communications as a matter of policy by controlling where and how much investment is needed. It is better left to entrepreneurs to assess the markets based upon prospective costs and revenues, and determine their strategies. Even if some of them inevitably fail, the gains to the public and society from competition and innovation will, over the long run, more than compensate for any short-term effects of individual failure.

38. Free competition with open entry may be introduced and licensing should only depend on reasonable pre-qualification criteria. There is no need to prescribe a limit to the number of licenses that would be granted. The level of investment required to set-up a national level NLD infrastructure would itself restrict the number of new entrants on to the scene.

39. Certain basic parameters and requirements for competitive entry under an open entry scenario will have to be defined as open entry policy can otherwise imply a fairly broad range of market structures in terms of the type of services to be provided, the regions to be served etc. Of course, new entrants must have some flexibility to deploy alternative technical, marketing and integration strategies so that this service segment can evolve in accordance with user needs and economic considerations. It may, however, be necessary to stipulate that only state-of-the-art digital networks would be permitted to ensure that only a modern and efficient world class telecom infrastructure is built up. It would provide the required thrust in achieving the objectives contemplated in the NTP 1999 in regard to opening up of national long distance communications. This would also obviate the need to start

initially with limited competition and then make transition to full competition after few years.

40. By and large, all the advantages and benefits anticipated from competition in telecommunications are theoretically possible through open entry. The threat of losing the existing or new business to the competitor would often make the incumbent respond by improving its own operations. There can, however, be risks associated with an open competition policy especially if the policy framework is not suitably delineated. Tariffs and interconnection will have to remain under close regulatory scrutiny as the market is opened up, to ensure that competition is not pre-maturely stifled by anti-competitive practices. Excessive imbalances in DTS's tariffs could also lead to inefficient "cream skimming" by new entrants, without bringing benefits through market-based discipline. It will also have to be ensured that new entrants contribute in one way or other to national development of the telecommunications infrastructure.

41. Screening of applicants may be made on technical parameters, financial soundness and business plan with performance obligations. Effective screening of applicants on these considerations and the magnitude of investment that is required for the roll out of a national level NLD network would tend to limit the number of new entrants, keeping non-serious players out of reckoning. This may be a better option instead of imposing any artificial restriction on the number of new entrants. The limitations in availability of access to Right of Way (ROW) would also restrict the number of NLD service providers. It may, therefore, be left to the market dynamics to determine the optimum number of operators.

42. Having looked at the available options in the context of an appropriate competition policy, the Authority recommends free competition with open entry (without any restriction on the number of new entrants) for NLD service subject to suitable selection criteria, with performance obligations.

43. The above recommendation is based on the majority decision (6:1). Mr. R.R.N. Prasad, Member, TRAI has recommended an oligopoly structure for the NLD market for the first five to seven years in stead of free competition; restricting the total number of NLD service providers to three including the Department of Telecom Services (DTS). This would mean the induction of only two new entrants to compete with the DTS. He feels that the DLD market structure has been regarded as a natural monopoly in a very large number of countries, particularly in the developing countries. The 'dissent note' of Mr. Prasad on this issue is enclosed at Appendix B1. The majority view of the Authority with para-wise comments on the 'dissent note' is enclosed at Appendix B2.

Licensing

RATIONALE OF LICENSE FEE

44. In the past, Governments have considered grant of license, as conferring of a concession which required to be compensated through a payment of a fee. Apart from using license fee as a mode of selection (award of license to the highest bidder), license fee has been seen as a means for augmenting State's budgetary resources. NTP 1999 having introduced a paradigm shift, augmentation of resources for the exchequer does not appear to be one of its objectives.

45. Telecommunications is no longer a natural monopoly that needs to be compensated for loss of revenue. In a market where competition is limited, there is perhaps some scope for rental gains to the service providers. Imposition of license fee in such situations may be justified for the purpose of mopping up rents. License fee may also be used for selection purposes in a limited competition situation.

46. In the suggested framework of open entry for NLD service, there will be no rent in the market, nor is there any need to use the license fee regime for selection purposes. Any significant burden on license fee account, even through the revenue sharing mechanism will only be a tax, which will render the service costly and, more importantly, it will be distortionary in its effect. The long distance service, apart from being an input in the trade and industry sector, improves connectivity in rural/remote areas as well as for emergencies, and keeping its cost low will promote India's global competitiveness and serve the social objective of globally connecting remote and backward areas. Any revenue from the service for the exchequer should be raised through the medium of the service tax. This will promote both transparency as well as efficiency in the deployment of resources.

47. What then should be the purpose of levying a license fee as a revenue share: for one thing, the incidence should not be so high as to become a deterrent to market entry. Since the fee will inevitably get reflected in the cost of providing service to the consumer, high license fee would defeat the objective of making the telecom services widespread and for being used for the overall development of the country. Higher the license-fee, the greater would be its adverse impact upon the end-user and upon accessibility of telecommunications services. Being an important means for global integration of economy, NLD Service becomes a crucial resource for trade and business, which needs to be provided at an affordable cost. In fact, both NTP 1994 and NTP 1999 have envisaged provision of widely accessible world class telecom services of good quality at affordable prices to Indian consumers in public interest.

48. Levy of high license fee may be relevant if the policy objective is to regulate scarce resources. NLD service providers are separately liable to pay charges related to spectrum, which is the only common public resource used. It has to be ensured that undue financial costs are not imposed on operators, which will inhibit the deployment of service. This would in turn defeat the objective of harnessing economic advantages, which the country would have exploited through NLD networks.

49. It is significant to have a reasonable license fee as entry fee or revenue share in the Indian context, where tele-density is among the lowest in the world and there is the urgent need to foster large investment to build up the telecom infrastructure. High regulatory and economic cost of entry would deter international players from focussing on the Indian telecommunications market as a priority market for deployment.

50. Establishing a NLD network at the national level is a capital-intensive business. High investment may itself be a natural deterrent to non-serious players from entering the field. However, in order to minimize non-serious players for a service of this nature, high entry cost would perhaps be relevant. It is also important that entry fee should not be so high that it tends to become a barrier even for the serious player desirous of entering the market. It should not impose undue financial burden on the operator, which tends to retard the network expansion.

51. Rapid technological advancements in telecommunications sector are responsible for high rate of obsolescence and unpredictability in market behavior. With dynamically shrinking margins due to increasing competition, it is difficult to estimate profitability levels that may sustain a specified revenue sharing percentage as license fee on a long-term basis without any adverse impact on overall viability of service provider. The quantification of license fee linked to 'viability study' may, therefore, not lead to very reliable results.

52. Licensing guidelines in various other regimes also propose a set of principles, which outline that if license fee is levied, it should be purely to recover administrative costs; and that fee should not be treated as a source of revenue for the State, but as a method to recover costs specific to the provision of that service. In most of the countries the idea behind low entry/ license fee is to recover the cost of administering a license and keeping out fly-by-night operators. Such fee should be proportionate to the work involved in the issue, management, control and enforcement of the individual license. This is also in consonance with the worldwide economic environment of lowering the entry cost in telecom service. Article 11 in the Directive No. 97/13/EC of the European Community (EC) specifically deals with Fees and Charges for individual licenses under the common framework for general authorisations and individual licenses in the field of telecommunications services. It requires the Member States to ensure that any fee imposed on licenses as part of authorisation procedures seeks only to cover the administrative costs incurred in the issue, management, control and enforcement of the applicable individual license. Such fee should be proportionate to the work involved. The directive requires the Member States to review their existing systems of calculating and collecting license fee so as to make them compliant with this directive.

53. The licensing practices in different countries vary widely and we have to carve out own licensing criteria. As per available information, the entry/ license fee structure for NLD service providers in other countries is as under:

| Country | Entry Fees |
|-----------|---|
| USA | None |
| Australia | Au \$ 10,000 |
| Brazil | Bidding |
| Malaysia | RM 500,000 for nation wide and RM 3,00,000 for international operations |
| France | 264,610 ECU (for infrastructure) and ECU 113,400 (for services) at national level |
| Spain | Bidding (licensing was started in December 1998 only) |
| Sri Lanka | One percent of investment |

SELECTION CRITERIA

54. The selection criterion has greater relevance in case of restricted competition. Any such criteria for licensing should be transparent.

55. In the situation of free and full competition with open entry, tendering or bidding process would not be relevant. Market dynamics would determine the optimum number of operators. Licenses could be made available to all applicants subject to, inter-alia, the following selection criteria and payment of Entry Fee:

- a. Submission of a Blue-print delineating the construction of the transmission and switching network including the technologies, products proposed to be used; and tied up Right of Way, if any.
- b. Roll out plan indicating the state-wise extent of roll out in all the four phases for national coverage.
- c. Proposals for coverage of uneconomic and isolated areas.

- d. Indicative Business Plan with the funding arrangement for financing the project.
- e. Financial soundness of the applicant (with the stipulation that the combined net worth of all the co-promoters of the Joint Venture should be at least Rs. 2500 crore).
- f. Experience in telecom sector.

57. The above recommendation is based on the majority decision (6:1) of the Authority. Mr. R.R.N. Prasad, Member, TRAI is of the view that under the oligopoly structure suggested by him, the selection of the two new entrants should be based on a transparent process of competitive bidding after a pre-qualification round to weed out non-serious players. His 'dissent note' is enclosed at [Appendix B1](#). The reasons of the majority for not accepting this view are contained in [Appendix B2](#).

ENTRY FEE

58. Since it is essential to restrict the entry of non-serious players, the Authority recommends that **one time Entry Fee may be fixed at an ad-hoc sum of Rs. 500 crore. A portion of the entry fee i.e. Rs. 100 crore should be paid in cash, which would be non-refundable. The balance entry fee of Rs.400 crore would be in the shape of a refundable deposit to be used as an incentive to ensure timely roll out of the network during the initial three Phases extending up to the first four years from the effective date of the license.** The applicant licensee may securitize this amount of entry fee in the shape of Bank Guarantees (BG) or investment in Tax Free Government Bonds with Licensor's lien on the bonds. The BG or the Bonds (along with accrued interest) should be released, as under, in favour of the licensee subject to phased completion of the network roll out:

Completion of Phase I Rs. 100 crore

Completion of Phase II Rs. 100 crore

Completion of Phase III Rs. 200 crore

59. Any shortfall below the percentage of network coverage, as stipulated in Para 90 of this Explanatory Memorandum for Phases I, II and III, would result in forfeiture of the right for incentive relatable to that phase. There would be no carry forward of the incentive from one phase to the next.

60. The above recommendation is based on the majority decision (6:1) of the Authority. Mr. R.R.N. Prasad, Member, TRAI has recommended that under the restricted competition suggested by him, Entry Fee for the two new entrants should be the highest bid amount as per competitive bids, which the second highest bidder should be asked to match to be eligible to enter the market. His

view is contained in [Appendix B1](#). The reasons for the majority view have been discussed in the note enclosed at [Appendix-B2](#).

REVENUE SHARE AS LICENSE FEE

61. As regards annual fee as a percentage of revenue share, the open competition for the provision of NLD service does not offer any scope for rental gains (as pointed out earlier), which may justify a higher revenue sharing percentage in order to mop up the likely rents. It is also difficult to predict a percentage of revenue sharing (based on some normative operating conditions) which can be loaded on this service segment without adversely impacting the overall viability. **The Authority, therefore, recommends, by a majority of 4:3, that the revenue share should be restricted to cover only the annual administrative costs in the management, control, enforcement and regulation of NLD licenses.** NLD service providers should also contribute towards sector development through Research & Development and/ or specialised studies. Details of expenses attributable to such sector specific administrative functions will have to be segregated. Based on current administrative cost of the DOT Secretariat and TRAI, revenue share would be well below one per cent of the Revenue. However, for strengthening the various organizations dealing with such licensing related functions and sector specific R&D, the Authority recognizes the need to collect revenue share as annual fee in excess of the current indicative figures. **The Authority further recommends that the revenue sharing percentage should not exceed five percent of the Licensee's Revenue.** Having stated so, the Authority is of the view that the Government, keeping in view the overall national requirement, may consider levy of a differential Service Tax on NLD service in addition to the annual license fee.

62. The aforementioned recommendations of the Authority is based on a majority decision (4:3) supported by Justice S.S. Sodhi, Mr. B.K. Zutshi, Mr. N.S. Ramachandran and Mr. M. Ravindra. The other three Members, Mr. U.P. Singh, Mr. Arun Sinha and Mr. R.R.N. Prasad were, however, not in agreement with the same. In support of their view that the revenue sharing percentage for NLD service should be fixed at 16 per cent of the Revenue, they have given their 'dissent note', a copy of which is enclosed at [Appendix C1](#). Basically, the 'dissent note' revolves around the concept that the demand for revenue share is intended to tap the rent available to a licensee by virtue of the licensing rights granted to him to operate in the market. The State has the right to partake in the revenues or profits of the licensee, treating it as one of the sources of revenue generation for the State to enable it to meet its various obligations.

63. Detailed para-wise comments containing the majority views of the Authority on the points mentioned in the 'dissent note', are enclosed at [Appendix C2](#). The Members of the Authority in favour of the recommendations as per Para 61 strongly feel that the purpose of telecommunication reform is not to collect revenues for Government but to provide widely accessible services of good

quality at reasonable prices. Telecommunication is no longer a natural monopoly, which may call for compensation to the monopoly holder for any loss of revenue. The arguments such as grant of license as conferring a concession by the Government, which needs to be compensated through the payment of a fee is no longer valid in the context of open competition in services, such as NLD service. In fact open competition limits scope for rental gains to service providers, which may otherwise justify a higher license fee. The ideology of high license fee was also debated extensively during the public consultations, which led to an overwhelming opinion that annual license fee as a percentage of revenue sharing should be restricted to cover only the administrative costs and expenses towards R&D, special studies etc.

64. It is to clarify that the aforementioned revenue share is exclusive of the contribution that the NLD service provider will be called upon to make separately towards universal access levy or any other charge for meeting universal service obligation as may be prescribed by the competent Authority.

65. One of the most important elements in investor confidence is the security and predictability in policy parameters particularly in areas, which have a bearing on the cost of providing a service. Ideally, there should be no change in the revenue sharing percentage for license fee during the duration of the license. In case there is any compelling need to make a change in this element, the parameters for such change should be clearly spelt out at the beginning itself instead of leaving it as an open ended affair. If a review has to take place within that period then it should also be subject to the percentage of revenue sharing not increasing.

REVENUE

66. Annual license fee as a revenue share percentage is to be determined with reference to the Gross Revenue. Normally the word "gross" indicates that it includes something, which could have been subtracted. "Gross Revenue" of the service provider would, therefore, consist of all revenues accruing to the licensee by way of operations of providing NLD service mandated under the license. All of this may not constitute licensee's own income as it would contain components, such as revenue collected from a subscriber to deliver a call to another network, which will have to be shared with the terminating network. Similarly interconnection revenues accruing from other service providers will have to be accounted for in accordance with the revenue sharing formula. It is only rational that the service providers should not be forced to "share" revenues that they do not retain. Licensee fee as a percentage of revenue sharing should, therefore, be based on "Revenue" to be derived from Gross Revenue. Its definition should be simple and easily auditable to minimise manipulations.

67. The Authority recommends that "Revenue" for the purpose of levying license fee as a percentage of revenue sharing shall mean the Gross Revenue accruing to the licensee by way of operations of providing NLD service mandated under the license (including the revenue on account of supplementary/ value added services and leasing of infrastructure), as reduced by the charges payable to other service providers to whose networks the NLD network is interconnected for carriage of calls. On this principle, there would be no double counting of telecommunication service related turnover for the purposes of license fee under revenue sharing arrangement in the hands of different service providers.

68. Similarly, in case of Category II Infrastructure Providers, the Revenue for license fee purposes would be that derived from bandwidth leased charges.

69. Taxes paid on the provision of service and contributions towards universal access levy or any other charge for meeting universal service obligation shall also be excluded.

70. Revenue is to be based on licensee's audited financial statement. It should be possible to cross verify the declared Revenue with reference to the books of accounts of the licensee in terms of the physical volume of traffic carried through the licensee's network during the relevant period.

MODALITIES FOR PAYMENT OF LICENSE FEE

71. Entry Fee shall be paid in advance before signing the License Agreement. Annual license fee under the Revenue Sharing arrangement shall be payable in four quarterly installments during the financial year. Each quarterly installment shall be paid in advance within 15 days of the commencement of the first calendar month of that quarter. The year for the purpose of license fee shall be the financial year ending 31st March. License fee for each quarter shall be paid provisionally by the Licensee on self-estimation of the Revenue for that quarter. Final adjustment of the license fee for the financial year shall be made on or before 30th June of the following year based on revenue figures duly certified by the Chartered Accountant engaged by the Licensee for auditing the Annual Accounts of the Licensee company.

72. Licensor/ TRAI may prescribe formats for the Maintenance of Accounts and furnishing of periodic accounting statements that enable the verification of declared Revenue. Licensor shall have the right to scrutinize the books of accounts of the Licensee for verifying the correctness of the reported revenue, and to seek verification statements through an independent Auditor on the declared Revenue and its conformity with the prescribed revenue concept.

73. Any delay in payment of license fee beyond the stipulated period will attract interest at the Prime Lending Rate (PLR) of State Bank of India as notified from time to time and further increased by two percent per annum. The interest shall

be compounded monthly at the rate (s) applicable for the period (s) of default. A part of the month shall be reckoned as a full month for the purposes of calculation of interest. While progressive quarterly payments are likely to be at variance with reference to the final liability based on audited accounts, these payments should be as accurate as possible. Any under statement of interim quarterly payments beyond twenty- percent of the final calculation may attract a penalty (not exceeding the amount of short payment) in case the Licensee fails to show that the under statement was not deliberate and that the projections were reasonable as per the then obtaining circumstances.

TERMS AND CONDITIONS OF LICENSE

74. The basic terms and conditions on which the new licenses should be issued to NLD service providers are extremely important. Under the existing administrative set up, the Government is vested with the powers to license service providers allocate spectrum and to establish technical standards. In view of dynamic nature of telecommunications technology, it is essential to provide adequate flexibility and avoid fore-closure of future options through any legal barriers. Flexibility in the terms and conditions of License Agreement would be useful in the context of evolving future structures, scope of concessions and spectrum rights.

75. TRAI has drafted the License Agreement for NLD service containing detailed terms and conditions, which is enclosed at [Appendix D](#) to this Memorandum.

76. The foreign investment is limited to 49 per cent as per practice being followed for other telecom services. It was suggested during the consultations that higher foreign participation would perhaps be warranted in view of the levels of investment involved in establishing national level NLD networks. TRAI is not commenting on it. The Government may like to review it in the light of the experience gained so far in the telecom sector.

LICENSE PERIOD

77. NTP 1999 stipulates award of licenses for an initial period of 20 years with extensions by additional periods of 10 years thereafter for various terrestrial services. No license period has, however, been stipulated in the policy document in respect of NLD service.

78. As per available information, the license periods in some other countries are as follows:

| Country | Period |
|-----------|-----------------|
| USA | No licenses |
| Australia | No fixed period |
| Spain | 30 years |
| France | 15 years |
| Malaysia | 20 years |
| Brazil | 20 years |

79. Considering the level of investment involved in establishing a NLD network, the gestation period associated with a service industry like telecommunications, and taking into account the license period for various terrestrial services that the NTP 1999 permits, **TRAI recommends that the license for the provision of NLD service should be awarded for an initial period of 20 years from the effective date. The license would be extendable by additional periods of 10 years thereafter.**

80. Longer license period would improve the prospects of financial closure for such capital-intensive ventures. The extension of license after 20 years also affords an opportunity to review the prevalent arrangement.

MODE OF COMPETITION

81. NLD service providers should be allowed to compete on facilities-based operations in the initial phase of the NLD market liberalization. Facilities-based competition certainly helps in ensuring augmentation of the infrastructure. A new entrant in the NLD segment would require long distance media and the trunk switches for providing the service. It should have a choice of building its own infrastructure as well as for leasing surplus capacity on existing infrastructure of any other service provider, utility or other agency. This would enable NLD service provider to access all available facilities for augmenting its bandwidth (including the build up of its own backbone) and economize on costs. The competition generated as a result thereof would ensure optimization in expansion of network and efficiency of operations.

82. NLD service provider may, therefore, exercise any of the following options or a combination thereof:

- i. Build its infrastructure.
- ii. Buy and/ or lease infrastructure from Infrastructure Providers.

iii. Buy and/ or lease bandwidth from Infrastructure Providers.

83. In open competition, market forces would ensure development of adequate facilities at different levels of the network.

84. Availability of adequate facilities is a pre-condition for efficient non-facility based competition in services. It is, therefore, essential to have competition in facilities in order to foster effective competition in services. Open competition with free entry in the provision of infrastructure would stimulate efforts in creating facilities at different levels and in ensuring availability of backbone facilities to all service providers in an equitable manner.

85. The concept of non-facilities based competition often entails making it mandatory for the incumbent to lease out bandwidth and switch capacity to the new entrant for providing services to the customer. This clearly does not appear to be the intention of the NTP 1999.

NETWORK ROLL OUT

86. It is essential to ensure that the new NLD licensees swiftly roll out their network and accomplish a wide-spread market presence, rather than concentrating upon small niches where quick profits can be achieved without requiring the investment to cover the entire country and range of services. The consumers all over the country must get a choice of NLD service provider and there should be an efficient build up of national infrastructure.

87. As indicated above, the network roll out would be in terms of establishing Points of Presence (POPs) in different LDCAs. At present, there are about 321 LDCAs in the country. The long distance network of DTS in the country is comprised of total 379 TAXs (as of 31.3.98), which include 21 Primary TAXs (or Level 1 TAXs). NLD licensee may also be required to provide a similar infrastructure for complete national coverage. The points of interconnect with access providers may even be at the local exchange level and need not necessarily be at the TAX.

88. Relative unattractiveness of the eastern region, remote and isolated areas from the commercial point of view may have to be addressed through special efforts in stead of leaving it entirely to market forces. Accordingly, roll out for unprofitable segments linked to geographical areas will have to be bundled with roll out obligations under the license.

89. Business plan of the prospective NLD service provider should delineate the type of infrastructure to be utilised for network roll out at the national level. The licensee should submit Circle wise network roll out plan for national coverage in four phases extending over a period of five to seven years from the effective date of license. The plan should also include the coverage of uneconomic/ remote

areas, which may be identified by the Licensor on the basis of some objective criteria before the issue of license. The phased roll out plan must ensure minimum network coverage as under:

| Phase | Time period for Completion from zero date (i.e. the effective date of license) | Cumulative percentage of national coverage in terms of Points of Presence required at the end of each phase | |
|-------|--|---|--|
| | | Total LDCAs | Coverage out of all the uneconomic/ remote areas to be included while establishing POPs in LDCAs |
| I | 2 years | 15 % | 2 % |
| II | 3 years | 40 % | 4 % |
| III | 4 years | 80 % | 7 % |
| IV | 5 – 7 years | 100 % | All |

90. Appreciating the difficulties on account of high/un-viable capital costs that the licensee may have to incur to reach every remote corner of the country for accomplishing cent percent national coverage, the Authority recommends that the roll out obligation of an NLD service provider may be restricted to about 80% of the national coverage within a period of four years from the effective date of the license. This would include coverage of uneconomic/ remote areas at least to the extent of 7 per cent of the national coverage within the first four years. Timely completion of the first three Phases would entitle the licensee to incentive in the shape of refund of Entry Fee, to the extent of Rs. 400 crore, as stipulated in Para 59 above.

91. Necessary infrastructure will be built to pick up the long distance traffic from each subscriber in the Circle. Once the NLD service provider has established a POP in a particular LDCA, it shall be bound to accept long distance calls of that LDCA for all destinations including international calls up to the VSNL gateways, and take all necessary steps to ensure delivery of such calls (excluding international calls) at the terminating end. The access providers and the NLD service providers may mutually agree to deliver and accept calls at inter-mediate points en route. Revenue

sharing and regulatory issues involved in transmitting national and international calls shall be separately addressed by the TRAI.

INFRASTRUCTURE FACILITIES

92. NTP 1999 contemplates the usage of the existing backbone network of public and private power transmission companies/ Railways/ GAIL/ ONGC etc. It appears to highlight that spare capacity of the existing extensive networks of utilities should be utilised. This will obviously include their existing and planned backbone. It is not clear as to whether the NTP 1999 suggests that usage of backbone network for NLD voice and data is to be restricted to the entities mentioned therein.

93. Infrastructure providers would mean entities, which provide inactive elements of the telecom network including dark fibers, right of way, duct space, towers and buildings etc. as well as those who provide end-to-end bandwidth. The utilities (as Infrastructure Providers) would also fall essentially in one of these categories.

94. Competition at network level is fundamental to effective competition at services level and needs to be encouraged. Any entity may build, own and lease infrastructure. Free competition with multiple backbone providers would help in the development of facilities. Availability of the backbone alternate to DTS would facilitate the faster take off in NLD competition. The market demand would ultimately determine the need for more capacity, which may be built by existing backbone owners or new infrastructure providers.

95. Infrastructure providers may like to participate not only as pure infrastructure providers but also as NLD service providers. During consultations, views were expressed that utility entities should concentrate on their core competence for which they have been created instead of diversifying in to an unrelated business of becoming a NLD service provider. These agencies have the right of way (ROW) constituting a valuable asset, which may give them advantage in terms of infrastructure and interconnection costs in the provision of NLD service. It was argued that these entities should confine themselves to the role of backbone provider at least for a period of 3-5 years so that there is a level playing field for the new NLD service providers. In case an agency owning ROW decides to become a NLD service provider, it should form a separate entity so that ROW is properly distributed and optimally used in a commercial manner. Utilities may sell ROW to other entities, which may like to become infrastructure providers.

96. Infrastructure owners provide a key link in the value chain rendering service to consumers. As per the ITU regulations, dark fibre or ROW is not covered in the definition of 'telecommunications'. Only if some electronic devices are put to the system, it gets covered under the definition of telecommunications. An infrastructure provider, who makes available only the dark fibre or duct may not need regulation. However, in case the infrastructure provider is providing circuits, he may have to be regulated.

97. The need for registration or issuing a formal license for the provision of backbone/ infrastructure has been examined. It is proposed that Infrastructure Providers may be classified into two categories as under:

- a. **Category I:** This would cover Infrastructure Providers who wish to provide assets such as dark fibres, right of way, duct space, towers and buildings etc.
- b. **Category II:** This would cover Infrastructure Providers who make available end-to-end bandwidth.

98. Keeping in view the provisions of the Indian Telegraph Act 1885, no formal license is required for Category I Infrastructure Providers. These entities may simply be required to register with an appropriate authority. Category II Infrastructure Providers may be licensed on simple terms and conditions, a format for which will be recommended by the TRAI separately. No Entry Fee should be levied on Category II Infrastructure Providers. They may, however, be required to pay an annual license fee not exceeding five per cent of their revenues derived from leasing of bandwidth, as also contributing towards universal access levy or any other charge, as may be determined by the competent authority, on the same pattern as that for NLD service providers.

99. Even in a competitive situation among infrastructure/ backbone owners for the provision of bandwidth capacity and/ or ROW, the cost at which these facilities are offered to NLD service providers would determine their interconnection charge. Leased line charges for NLD service providers will be regulated separately by the TRAI.

100. A question may arise as to whether the present definition of service provider in the TRAI Act 1997 will include Category II Infrastructure Providers for the purpose of regulation. In order to remove any ambiguity in this regard, the TRAI Act 1997 may suitably be amended.

101. There should also be no restriction on infrastructure owners (including utilities) in becoming NLD service providers if they so wish on commercial considerations, provided they do so through a structurally separate licensed legal entity. They may compete at par with others. It would offer incentive in encouraging utilities to further invest in consolidating, expanding and undertaking technology up-gradation of infrastructure.

RIGHT OF WAY

102. Right of Way (ROW) is another constraint in building up infrastructure apart from finance and technology. Since ROW is a national resource with limitations on its availability, efficient utilization of the same is imperative for effective competition among NLD service providers. There may also be the need to effectively coordinate the allocation of ROW by public utilities to private parties.

Every infrastructure provider and NLDO should have access to ROW at par with DOT/ DTS. Streamlining of procedures and reasonableness of charges levied by different Authorities for obtaining ROW should be sorted out by the Licensor to minimize avoidable delays in network roll out on this count; if necessary even by amending the Indian Telegraph Act 1885. Appropriate guidelines may have to be framed in this context.

RESELLERS:

103. As per experience elsewhere, non-facilities based competition such as **Resale** has played an important role in promoting and sustaining competition in telecommunication services. It provides an effective entry vehicle for new entrants that may initially lack the required capital to build up their own facilities. Resellers tend to stimulate usage of the existing network through innovative means, and thus benefit the facility-based providers as well as in the growth of the information economy. This competition has the potential effect of lowering prices to consumers with increased consumer welfare resulting in stimulation of economic growth. In countries like India with low tele-density, price reductions would certainly expand the number of households that can afford service. Over a period of time, resellers may also tend to become facilities-based operators to offer services.

104. Experience in the long distance markets in countries like USA suggests that resale can yield significant public benefits. Most importantly, resale competition in the long distance market has reduced prices for consumers. By providing affordable prices for the customer, resellers have stimulated demand and thus compelled facilities-based carriers to bring their prices closer to actual costs. At the same time, the increased competition from resellers helped expand the availability of innovative services, such as new billing terms and alternative rate structures. Thus, by promoting effective competition, resale can help to achieve the public interest goal of economically efficient, reasonably priced, high quality communications services.

105. **NTP 99 as well recommends that resale would be permitted for domestic telephony.** There is, therefore, the need to provide the regulatory framework, which supports resale in light of this policy decision and the potential of resale in the development of competition. **During the consultations, a view was expressed that non-facilities based competition should not be allowed for at least 3-4 years till adequate build up of infrastructure has taken place and the market matures.**

106. **Resale of NLD services may include switch-based or switch-less resale. Switch-based resale is a preferred option in the initial stage of network build up.** Switch-less re-sale also fuels competition and it may prevent duplication of resources as the Reseller identifies and taps surplus capacities of existing Access Providers to compete. **However, in view of limitations on the**

existing availability of transmission/ switching capacities and spare circuits, switch-less resale may not be permitted in the initial years of opening up.

107. Fundamentally, Reseller is an entity who sells what he buys from the service provider and gets his arbitrage on difference between bulk rates and retail rates. Basically, therefore, a Reseller only sells the products which the service provider is authorised to sell under the license. A Reseller may be franchised by the service provider who would hold the overall responsibility on tariffs, quality of service, other terms and conditions of License Agreement. In the context of NLD service, a Reseller may, therefore, provide any of the following:

- i. Switched connection at the national level.
- ii. Bandwidth on demand. It may resell the service without adding any infrastructure; or by making value additions through additional infrastructure owned or leased.

108. Resale of services is already in practice in a limited way in India in terms of STD PCO's who are re-sellers of long distance service, and PABX service providers as resellers of the network access. Resale of services is more prevalent in matured markets and used for enhanced sales of service. NLD service providers may use Resellers as their franchisees to expand the provision of NLD service. Instead of being independently licensed on the pattern of NLD service providers, Re-sellers may operate as a sub-licensee/ franchisee of NLD service provider.

109. After deliberating at length over these issues, the Authority feels that Resale of NLD services would be more suitable in the Indian context once the market matures. Resale of NLD services may, therefore, be introduced only after 3 to 4 years of the opening up of the market.

INTERCONNECTION

110. Competitive NLD service providers must be able to obtain access to end-users and vice-versa. A clear and effective policy for interconnection of networks is, therefore, imperative in a competitive scenario. New entrants must be provided reasonable and cost-based access to the existing networks for effective implementation of a multi-carrier regime. New Regulations/ directives would be required in the areas covering carrier pre-selection or dial around, interconnection charges and revenue sharing arrangements, access and carriage charge, numbering plan and conformance with technical standards. It would also require unbundling of local and intra-circle long distance services by the existing FSPs and CMSPs. Constant monitoring and intervention of the TRAI would invariably be required to sort out these issues. This will have to be linked to the following key steps:

- Proper definition of network service elements to be unbundled for competitor's use;
- Determination of appropriate cost-based charges for such elements;
- Stipulating the manner in which these charges will be levied on interconnecting carriers, including contribution towards universal service fund or access deficit.

111. Since interconnection policy is likely to be a long and iterative process, TRAI feels that long distance competition need not be postponed till such time an ideal interconnection regime is established. In fact, the Authority is already engaged in a separate exercise of formulating a Model Framework for Interconnection, which is expected to be in position before the new NLD licensees commencing their operations.

112. The service providers would negotiate their interconnection agreements, which would be subject to review and intervention by the TRAI in case of lack of agreement within sixty days. Each NLD service provider will have the right to interconnect with DTS and/or other service providers following the principles of non-discrimination, transparency, timeliness, mandatory interconnection at any technically feasible point in the network, unbundling of the elements of the network, and cost based charges. These principles have already been enunciated by TRAI.

113. While TRAI expects to intervene on interconnection only to the extent the service providers fail to reach agreement, it recognizes that negotiation left entirely to private parties may not yield results in the best public interest. As per experience in other countries for example, an incumbent with sole access to the end customers has an incentive to delay interconnection of long-distance competitors or charge them substantially high interconnection rates. The new NLD service providers, once having made substantial investments in long-distance networks, may tend to divide up the market with the incumbent and restrict competition from later entrants. In any such case, the resulting end-user prices will be too high and competition will be restricted.

114. Over the years, the interconnection has been established in accordance with DOT's network hierarchy, which more or less gives seamless operations and feasible interconnections. Developed from this, charging plans have been drawn up and calls are switched at LDCCs (Long Distance Charging Centres) as unit. This arrangement of network hierarchy may not be disturbed.

115. Interconnectivity of FSPs and CMSPs with VSNL for the international traffic should also be through NLD service providers with revenue sharing arrangements to be negotiated commercially subject to TRAI's Orders/Regulations issued from time to time. The consumer should have the choice to select his/her preferred NLD carrier for the domestic leg of an international call.

Interconnection of all NLD service providers with VSNL will be on non-discriminatory terms. Regulations on revenue sharing and fixing of termination charge shall be separately framed by the TRAI.

ACCESS ARRANGEMENTS

116. Suitable access arrangements should be made available to NLD service providers by Access Providers. **Carrier Access Codes (CAC) should be notified having dialing parity with APs in conformity with the National Numbering Plan. It should be used to identify a long distance carrier by a customer of any AP in order to promote free choice and equal ease of access (EEA).**

117. The technical arrangement for extending the facility of pre-selection and/ or dial around shall have to be incorporated to enable the consumers to have choice of NLD service provider by dialing a CAC for the carriage of national long distance traffic. The dial around facility is feasible even in the mix of old and new technologies in switching equipment. Consumers should have the flexibility to select the operator on a dynamic basis. At a subsequent date, preferably within a period of 3 years, access providers should also extend the facility of carrier pre-selection by incorporating suitable modifications in the software.

118. It would be desirable that a technical group consisting of representatives of DTS, DOT and other APs, under the aegis of TRAI, is assigned the task of devising a scheme for dialing- access to different NLDOs and APs. The objective should be to devise a suitable scheme of access codes of uniform number of digits for the NLDOs and APs with adequate provision for additional players at a later date. The group may also supervise arrangements for introduction of pre-selection and for an inter-carrier charge billing system.

STD PCOs

119. STD-PCOs are currently being franchised by the FSPs within their service areas, which provide access to telephone to the public. It is felt that the franchising and operation of STD-PCOs should continue to be the domain of Access Providers. NLD service providers should not be permitted to by-pass Access Providers by setting up their own STD-PCOs as it would result in providing a direct access to consumers. In order to directly provide PCOs, the NLD service provider will be required to obtain a separate license as the FSP. However, Access Providers will ensure that on each STD-PCO, the subscriber is given the choice of selecting any DLD service provider operating in that area for carriage of his long distance traffic. Suitable revenue sharing arrangements should be negotiated between Access Providers and NLD service providers subject to Orders/ Regulations of the TRAI issued from time to time.

BILLING SERVICES

120. Billing for NLD service providers by Access Providers appears to be the most practical and cost effective solution. Access Providers should, therefore, provide billing services to NLD service providers on reasonable terms, which may be negotiated mutually. This would provide convenience to consumers by way of a consolidated bill for their local/ long distance services. Access providers and NLD service providers must also ensure that devices conforming to CCS 7 signaling system are deployed to generate adequate Call Data Records (CDR) for efficient inter-carrier settlements under a multi operator environment. It has already been suggested above that the technical group to be formed for formulating a suitable scheme of CACs may also supervise arrangements for inter-carrier charge billing systems.

LEVEL PLAYING FIELD BETWEEN THE INCUMBENT AND NEW ENTRANTS

121. A critical factor in the success of private sector participation in the provision of NLD services in the face of a well-entrenched, incumbent monopoly operator is the need for not only a de jure, but a de facto level playing field. In other words, the conditions of competition or terms of participation in the market for the new entrants have to be such that the incumbent monopoly is prevented from using its market power to stifle competition. Among the issues important for ensuring this are those relating to interconnection, in all three of its aspects, namely, physical, technical and commercial; access to bottleneck facilities, use of scarce resources and of common facilities, right of way and transparency in the matter of technical information, and unbundling. Unbundling is the identification and disaggregation of physical components of a network into a set of "price parts" that can be individually costed, priced and utilized to provision any service offering. This is necessary if a service provider does not have to pay for services not required by it. Since in case of the DTS, it is not only the incumbent monopoly for Long Distance Service, but, in other than Delhi and Mumbai, is also the access provider, and, in other than, Madhya Pradesh, Maharashtra, Andhra Pradesh, the only access provider at present, it is all the more necessary that unbundling takes place. Unbundling involves accounting separations, which is a difficult and long drawn out process, particularly in the context of DTS's Government Accounts system. It is, therefore, necessary to devise a simpler way of ensuring a level playing field for new entrants with the incumbent monopoly. The best and the most efficient manner of doing so is to mandatorily bring about structural separation of the provision of Long Distance services by hiving off the long distance operations of DTS and providing them through a separate corporation. The Authority considered the issue in great depth and came to the conclusion that other means of regulatory control of mandatory accounts separation, differential and stricter regulatory oversight of the incumbent monopoly, may not still provide a de facto level playing field for the new entrants. Since Government has already decided to corporatize the DOT, it should be possible to hive off long distance service provision from the rest and provide it

through a separate corporation. In any case, at the very least mandatory accounting separations should be brought about at the earliest.

122. In the interest of level playing field, it is also necessary that the Entry Fee and License Fee (as a percentage of revenue share) payable by a new entrant in NLD service, as finally decided by the Government, is also payable by the DTS on same terms and conditions.

TARIFF RE-BALANCING

123. Tariffs have an important role in determining the profitability of the NLD operations. Business plans of the prospective NLD service providers should, therefore, make realistic assumptions in arriving at the viability analysis. At the end of the TRAI's current tariff re-balancing program, ending in March 2001, tariffs will continue to remain unbalanced i.e. the long distance rates will continue to be much above costs. For effective and meaningful competition in the long distance segment, which will benefit the consumers, further re-balancing will be necessary to push down tariffs towards costs. It is the intention of the TRAI to do so either by direct intervention or through market driven means. This has to be made known to potential investors. The costs would take into consideration the contributions required to be made by NLD service provider towards universal access levy. Bundling through tariff packages may be left to market forces subject to reporting requirements as per the Telecommunication Tariff Order, 1999 and/ or other orders issued by the TRAI from time to time.

UNIVERSAL SERVICE OBLIGATION

124. The task of tariff re-balancing has just commenced in India and the current rate structure for local and long-distance tariffs still involves large cross-subsidies. It is expected that the prospect of new market entry would stimulate further re-balancing of tariffs in the interim. An agreed methodology for determining, in a transparent manner, the level of capital/recurring costs required for DOT to meet its basic service local-access requirements and/or other universal service obligations has yet to be evolved.

125. NTP 99 stipulates that the resources for meeting the USO would be raised through a 'universal access levy' which would be a percentage of the revenue earned by all the operators under various licenses. The percentage of revenue share towards universal access levy is to be decided by the Government in consultation with TRAI. The funding mechanism for universal service, which is currently built into long-distance tariffs, is being reviewed by the TRAI under a separate extensive exercise underway on universal service obligation. Any subsidies required to meet social obligations would be funded through a transparent mechanism instead of cross-subsidies. NLD service providers would be required to contribute towards universal access levy or any other charge for universal service obligation as may be determined by Government in consultation with the TRAI.

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DISPUTE RESOLUTION

126. It is to be appreciated that all service providers are in the telecom sector by virtue of a license granted to them by the licensor. Most, if not all, disputes whether between licensor and licensee or between service providers, would in all likelihood arise from or in connection with the terms and conditions of a license. It would be pertinent to note here that the High Court of Delhi in dealing with clause (e) of Section 11(1) of the TRAI Act, which reads "ensure compliance of terms and conditions of license", held that TRAI could not give any directions to Government in its role as the Licensor. This thus leaves the question open which forum would it be that would enforce the terms and conditions of license.

127. In this regard, there are three possible forums for settlement of disputes namely, Courts; Arbitration; and TRAI (under the TRAI Act). What needs to be appreciated is that players in the telecom sector seek a dispute resolution mechanism that is expeditious, cost effective, and most importantly independent. The mechanism should also have the requisite competence to deal with the highly complex techno-economic issues that may arise in this sector.

128. The judiciary in India is no doubt independent and much respected but delays in Courts are proverbial and what is more litigation in court is not inexpensive. Courts also do not have many occasions to deal with the complex techno-economic issues.

129. Turning to Arbitration, it again involves hearings in Court - and at various stages of the proceedings. To obtain interim relief before or during arbitral proceedings, a party is, under Section 9 of the Arbitration and Conciliation Act, 1996, required to apply to the Court. It is again the Civil Court of original jurisdiction that has to be moved, whether for setting aside or enforcing the Award (Sections 34 and 36 of the Arbitration Act). There is also under Section 37 of the Arbitration Act, an appeal provided against any order passed by the court in Arbitration proceedings. It would be pertinent to note that there is a special procedure prescribed for proceedings under the Arbitration Act (Section 23 to 27) unlike under the TRAI Act where all that is said that "the Authority shall be guided by the principles of natural justice"(Section 16 of the TRAI Act)".

130. Regarding the competence and standing of TRAI for being the dispute settlement forum, it will be seen that the Chairperson can only be a Judge of the Supreme Court or Chief Justice of High Court, whether serving or retired, while the other Members must be persons having special knowledge and professional experience in telecommunications, industry, finance, accountancy, law, management and consumer affairs (Section 4 of TRAI Act). In other words, TRAI is eminently qualified to discharge the functions of a dispute settlement body.

131. Further, unlike an Arbitrator, TRAI can on its own grant interim relief and whereas the jurisdiction of an Arbitrator is confined to the terms of reference. TRAI can, not only adjudicate upon the points in issue but it can also issue further directions as may be necessary in the interest of justice. What is more, TRAI's orders are enforceable as such. No recourse to Court is required to confer the mandate of enforceability upon them. Not only this, violation of any directions of TRAI can render the persons concerned liable to penalties as prescribed in Section 29, 30 and 31 of the TRAI Act, as the case may be.

132. An order passed by TRAI is amenable to appeal to the High Court, unlike a challenge to the Arbitration award, which lies to the Civil Court. There is a marked difference in procedure of the Appellate Court from that of the Civil Court, even if they both happen to be the High Court, as may be the case in Delhi. The suggestions emanating from DOT in the past that recourse will not be taken to lower Courts is legally untenable, as it cannot change the law of the land.

133. At the heart of this debate is the issue of investor confidence. In the existing circumstances in India, TRAI is the forum that can best promote this confidence.

134. From the above analysis it is evident that the TRAI Act must clearly state that the TRAI will settle all disputes arising out of or in connection with the license granted to a service provider and also those pertaining to its functions as set out in Section 11 of the Act. In view of recent judgement of the High Court of Delhi, it would require amendment of the TRAI Act, and this Authority recommends to the Government accordingly.

APPENDICES

APPENDIX A

EXPLANATION OF SOME IMPORTANT TERMS

LOCAL AREA

1. It is the geographical area served by an exchange or an exchange system. Calls originating and terminating within the same local area are charged at local call rates. Remote Subscribers' Unit and Concentrators are to be treated as an exchange for the purposes of this definition.

Long Distance Network

2. A network of transmission and switching elements connected in a predetermined fashion to provide switched interconnection between various local areas. Physically the network elements may be co-located or be a part of bigger elements.

Long Distance Call

3. Long Distance call may be defined as a call terminating in a local area other than in which it was originated. Carriage of a long distance call is the licensed function of a NLD service provider. A long distance call may be charged at the rate of a local call for various considerations. What is relevant is the 'carriage' and not the 'charge', which determines the classification.

INFRASTRUCTURE PROVIDERS

4. Infrastructure Providers would mean entities, which provide assets such as dark fibers, right of way, duct space, towers and buildings etc. as well as those who make available end-to-end bandwidth. The utilities (as Infrastructure Providers) would also fall essentially in one of these categories.

APPENDIX B 1

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Copy of Dissent Note from Mr. R. R. N. Prasad, Member, TRAI
against
"Free competition with open entry in NLD Service"

Dated 3rd December, 1999

Dear Justice Sodhi,

Kindly recall the discussions we have had in the Authority meeting on 1st of December to finalise our recommendations on introduction of competition in Domestic Long Distance Communications. Para 9 of the recommendation relating to competition stipulates free competition with open entry (without any restrictions on a specific number of new entrants) subject to pre-qualification/eligibility criteria and performance obligation entered in terms of network roll out plan. As stated in the meeting, I am not in agreement with the

concept of free competition in the DLD segment of the telecom market, because of the following reasons.

i) At the outset, I would like to point out that considering the tremendous economies of scale and scope offered by a nation-wide long distance telecommunications network, the DLD market structure has been regarded as a natural monopoly in a very large number of countries particularly in the developing countries. Even in USA, there are only three nation wide long distance operators, two of them i.e. M/s MCI & Sprint are negotiating a merger thereby reverting to a Duopoly structure of early 80s. Similar is the *de-facto* position in a large number of European countries. It is therefore reasonable to assume that the DLD market structure is a natural oligopoly if not a Duopoly in India also. This conclusion has been arrived at by the studies carried out by our consultants also. Therefore, the concept of free competition with open entry will create an economically unviable situation resulting in the death of a number of operators who may rush in initially, lured by perceived high profits, thereby creating another so called 'telecom mess' to be untangled by the Government. It will also result in needless duplication and sub-optimal utilisation of national resources, which are rather limited at this point of time.

ii) Ideally speaking, we should have followed the Duopoly model adopted by the Government while opening up the Basic and Cellular markets in early 90s which still retains its validity based on the realities of the market place. However, to promote greater competition and customer choice we should allow two private operators to compete with the DOT on a nation-wide basis. The selection of these two operators should be based on a transparent process of competitive bidding after a pre-qualification round, to weed out non-serious players. The entry fee should be the highest bid amount, which the second bidder be asked to match to be eligible to enter the market.

iii) The *modus operandi* suggested in pre-para is the most transparent and market determined method of fixing the entry fee. Any ad-hoc sum of rupees xx crores based on an ad-hoc percentage of 1 to 2 of the total prospective plans over a period of 5 years as recommended in paras 19/20 will result in arriving at a fee which is either too high or too low. This methodology was tried some European countries such as in Germany and England in early 80s and the same has been given up as it came in for a lot of criticism. OFTEL has now resorted to the open bidding process for award of telecommunication licences in the UK. The US Regulator FCC has adopted competitive bidding as the basis for award of their licences during the last 20 years.

iv) In addition to the economic reasons indicated in para (i) for restricting the entry to two private operators in addition to the DOT, there are also technical reasons for doing so. Since a telecom network does not exist in isolation and is required to be connected to all the other networks, the DLD network will have to be interconnected to about half a dozen Access Providers networks and to each

other. Too many DLD networks will create a large number of possible interconnection links and points, which may be difficult to plan and manage. Since most of the traffic will ultimately flow through the existing backbone of the DOT network, their planning task will be easier if they know in advance the exact number of new players for which they have to provide inter-connection points in their existing TAXs.

v) In the light of what has been stated, I would like to recommend in the initial phase of 5 to 7 years, we follow the oligopoly (2+1) market structure and thereafter review the same for possible entry for more players, based on a more realistic assessment of the demand. It will be worthwhile mentioning that two of the most prestigious telecom regulators i.e. OFTEL of UK and AUSTEL of Australia adopted the Duopoly model for the first 7 years, and thereafter they recommended further opening up of the market. An evolutionary approach rather than a revolutionary approach will be better.

What has been stated at paras (i)/ (v) may kindly be incorporated in the Recommendations of the TRAI as a minority view and forwarded to the Department of Telecommunication as an alternative.

With kind regards,

Yours sincerely,

(R.R.N. PRASAD)

Mr. Justice S.S.Sodhi,

Chairperson,

Telecom Regulatory Authority of India,

New Delhi-110 001.

MAJORITY VIEW ON THE DISSSENT NOTE (APPENDIX B1)
FREE COMPETITION WITH OPEN ENTRY IN NLD SERVICE
PARAWISE COMMENTS

Mr. RRN Prasad, Member, TRAI has dissented with the majority view on the concept of 'free competition with open entry' in NLD service. A copy of his 'Dissent Note' is enclosed at Appendix- B1. Points mentioned in his Note and comments thereon, which have led to the majority view in the Authority, are as under:

- i. At the outset, I would like to point out that considering the tremendous economies of scale and scope offered by a nation-wide long distance telecommunications network, the DLD market structure has been regarded as a natural monopoly in a very large number of countries particularly in the developing countries. Even in USA, there are only three nation wide long distance operators, two of them i.e. M/s MCI & Sprint are negotiating a merger thereby reverting to a Duopoly structure of early 80s. Similar is the *de-facto* position in a large number of European countries. It is therefore reasonable to assume that the DLD market structure is a natural oligopoly if not a Duopoly in India also. This conclusion has been arrived at by the studies carried out by our consultants also. Therefore, the concept of free competition with open entry will create an economically unviable situation resulting in the death of a number of operators who may rush in initially, lured by perceived high profits, thereby creating another so called 'telecom mess' to be untangled by the Government. It will also result in needless duplication and sub-optimal utilization of national resources, which are rather limited at this point of time.

Comments:

a) Since the telecom market structure was historically developed by the Government public sector entity in most of the countries, an impression got created over a period of time that the DLD market is a natural monopoly. Such operators did not come into being on considerations of economies of scale or scope. This arrangement further suited the tariff policy frameworks, as it was easy to bundle or cross subsidize access to basic telephone services by the revenues from long distance charges. The historical legacy, therefore, cannot be taken for the natural structure. Now when the Long Distance service is being opened up for competition either due to the needs of technological advancement and creation of infrastructure or as per the commitment of various Governments under the WTO Agreement, a flurry of activities are likely to be witnessed in the telecom market. The drivers for these activities are process of market liberalization, privatization of the state monopolies/entities, and technological advancement. Of the above cited three drivers for

bringing about change, technology is the most important component which is shaping telecom strategy everywhere.

b) The Dissent note has alluded to the American market as an example to say that nature of the DLD market is that of a natural monopoly. Normally mergers and amalgamations are barometer for healthy competitive market environment. It is true that American market has been a very active market. An analysis of the American market reveals that most mergers in the US communications industry have been horizontal, with long-distance firms merging with each other (e.g. WorldCom's \$37 billion take over of MCI), and local phone companies continuing to do the same business. AT&T came up as a private monopoly. When the DLD sector was opened up for competition in 80's, many long distance operator came into the field and provided competition to AT&T. Most of the new players, however, could not match the reach, financial and technological power of AT&T. Every effort was made by the Regulator to create level playing field and the new operators based on their market strategy started their service, albeit on a limited scale. While many players merged with the other players as per the market forces, the new players could not acquire the market beyond 15%. But this was not due to the fact that the market was not conducive for a number of players, rather it was due to the fact that AT&T had large financial and technological resources at their command. To make a significant dent into the market share of AT&T, the competitors were required to match its resources. If two competitors M/s MCI & Sprint are thinking of merging, it is to gain a competitive edge by pooling in their resources. It is not that there are complete buy-outs or sell-outs by one company. In fact it would not be out of place to mention that most of the mergers which are taking place either in American or European markets are motivated by the need to consolidate the resources of these companies, and thereby having a higher market presence.

c) To label the DLD market as a natural monopoly is to put undue emphasis on historical legacy when the world is moving towards a free and competitive environment. The nature of driving forces are such that even the big established telecom companies are under pressure and are being subjected to the revolution of mergers and takeover in the telecom market. Some of the big telecom players who have gone in for mergers are:

Companies Sales in 1997 (\$ Bn)

AT&T + TCI 155.0

Bell Atlantic +GTE 120.0

SBC + Ameritech 129.4

MCI + WorldCom 91.5

d) In fact, mergers often take place in the emerging markets to realign the players for consolidation, re-structuring and developing a more competitive approach.

- ii. Ideally speaking, we should have followed the Duopoly model adopted by the Government while opening up the Basic and Cellular markets in early 90s which still retains its validity based on the realities of the market place. However, to promote greater competition and customer choice we should allow two private operators to compete with the DOT on a nationwide basis. The selection of these two operators should be based on a transparent process of competitive bidding after a pre-qualification round, to weed out non-serious players. The entry fee should be the highest bid amount, which the second bidder is asked to match to be eligible to enter the market.**

COMMENTS

a) NLD market in India has so far been a monopoly market of the DOT with reach across the nation. There are significant risks under the restricted opening up as many of the expected benefits of competition could be reduced or lost if the market structure does not conform to the expectations. Oligopoly model in particular has certain advantages but at the same time it has many pitfalls. Oligopoly with two private operators competing with DTS, as suggested, implies a restricted competition. Such an arrangement is perceived to avoid the inter-operator complexities associated with the opening up till the market matures to absorb more players. While oligopoly appears to offer relatively simpler model whose effects are open to quick scrutiny based upon market performance, this option carries significant risks. Many of the expected objectives of competition could be marginalised if the market structure does not conform precisely to the envisaged plan. The resulting market may, if all the forces operate properly, gravitate towards an equally split market of NLD revenues and customers, with prices also somewhat similar. The restricted competition between the incumbent and the new entrants may not be truly market driven. It may tend to result in cartels in terms of market sharing and pricing. Such types of practices are very difficult to detect and hence are difficult to be prevented. Improvements in efficiency, technical innovation, and cost savings could also be reduced in a restricted market competition once the two new entrants establish their market position. Many of the problems of monopoly situation may simply get expanded in the oligopoly situation. Even from the viewpoint of licensing, the Licensor has to undertake an extensive process of licensing when only two new entrants are allowed.

b) Open competition is based on the fundamental tenet of the market economy, which encourages entrepreneurs and investors to invest as much as they desire, and to test the market according to their best evaluation of the

opportunities. It is not necessary to control and restrict investment in to NLD communications as a matter of policy by controlling where and how much investment is needed. It is better left to entrepreneurs to assess the markets based upon prospective costs and revenues, and determine their strategies. Even if some of them inevitably fail, the gains to the public and society from competition and innovation will over the long run more than compensate for any short-term effects of individual failure.

- iii. The *modus operandi* suggested in pre-para is the most transparent and market determined method of fixing the entry fee. Any ad-hoc sum of rupees xx crores based on an ad-hoc percentage of 1 to 2 of the total prospective plans over a period of 5 years as recommended in paras 19/20 will result in arriving at a fee which is either too high or too low. This methodology was tried some European countries such as in Germany and England in early 80s and the same has been given up as it came in for a lot of criticism. OFTEL has now resorted to the open bidding process for award of telecommunication licenses in the UK. The US Regulator FCC has adopted competitive bidding as the basis for award of their licenses during the last 20 years.

Comments

Countries like US and UK levy nominal fees for authorizing the licenses for telecommunication services. Competitive bidding were resorted to in USA for the auction of spectrum for PCS licenses. UK is also contemplating auction of spectrum for CMTS licenses. Spectrum charge is separately paid by the Licensee even in India as the WPC charge.

- iv. In addition to the economic reasons indicated in para (i) for restricting the entry to two private operators in addition to the DOT, there are also technical reasons for doing so. Since a telecom network does not exist in isolation and is required to be connected to all the other networks, the DLD network will have to be interconnected to about half a dozen Access Providers networks and to each other. Too many DLD networks will create a large number of possible interconnection links and points, which may be difficult to plan and manage. Since most of the traffic will ultimately flow through the existing backbone of the DOT network, their planning task will be easier if they know in advance the exact number of new players for which they have to provide inter-connection points in their existing TAXs.

Comments

The level of investment required to set up a national level DLD infrastructure would itself restrict the number of new entrants on the scene. Points of Interconnect and other resources for interconnection will have to be negotiated by NLD service providers with the incumbent and FSPs subject to

TRAI's regulations/orders. With the sharing of infrastructure among service providers now permitted by NTP 1999, dependence of NLD service providers on the DTS would reduce.

- v. In the light of what has been stated, I would like to recommend in the initial phase of 5 to 7 years, we follow the oligopoly (2+1) market structure and thereafter review the same for possible entry for more players, based on a more realistic assessment of the demand. It will be worthwhile mentioning that two of the most prestigious telecom regulators i.e. OFTEL of UK and AUSTEL of Australia adopted the Duopoly model for the first 7 years, and thereafter they recommended further opening up of the market. An evolutionary approach rather than a revolutionary approach will be better.**

Comments

Having carefully looked at all the options, experience of other countries and the stage of network development in India, the majority in the Authority feel that there is no need to start initially with limited competition and then make transition to full competition after 5 to 7 years. In case certain basic parameters and requirements for a competitive entry under an open competition scenario for NLD service are delineated, it is possible to expeditiously achieve the objectives contemplated in NTP 1999. Open competition would perhaps provide a platform for the country to leap frog in the NLD service segment bridging the development gap. During the consultations on the issue, there was an overwhelming opinion in favour of open entry without artificially restricting the numbers. This opinion was also based on the expectations that given the size of investment required for nation-wide network as envisaged in the Recommendations, the number would get automatically restricted to 2 or 3 players.

APPENDIX C 1

**Copy of Dissent Note of Mr. U.P. Singh, Mr. Arun Sinha
and Mr. R.R.N. Prasad, Members, TRAI**

on the issue of

License Fee as a percentage of Revenue Share

Dated 3rd December, 1999.

Dear Justice Sodhi,

We are enclosing hereinafter our views to form an integral part of the recommendations of TRAI, albeit as minority recommendation, in respect of Revenue sharing basis for charging license fees from prospective National Long Distance licensee operators (NLDOs). Our recommendations are as follows:

1. In the case of GMPCS license fees, we had taken a stand that license fees based on revenue share can not be construed as meaning cost of administering the license fees. Had it been so, the National Telecom Policy (NTP)'99 would have clearly spelt it out as such. In its absence, our stand remains the same even for considering the basis of NLDO license fees.
2. The demand for revenue share is obviously intended to tap the rent available to a licensee who may be allowed by the licensor to operate in the market. The question, whether such a rent should be collected through a revenue sharing arrangement or general taxation or by way of service tax or through all these means is really a question of modalities. The essential point, common to all these modalities, is that the state desires and reserves the right to partake in the revenues or profits of the licensee, treating it as one of the sources of revenue generation for the State to enable it to meet its various obligations. In the case of service tax, the incidence is directly passed on by the Service Provider to the consumers or subscribers. That need not be the case if part of the revenue/profits of the service provider is mopped up either by revenue share or through taxation.
3. Taxation, however, is unrelated to the nature of service provided and is subject to a host of adjustments before taxable profits are displayed. The Revenue share, on the other hand, has a relationship to the value of service offered. In a competitive environment a Service Provider would have to carefully evaluate, based on affordability and targeted volume of business, whether to absorb the incidence of revenue share by minimising its operational costs and increasing its overall efficiency or passing it on to the consumers/subscribers. In the case of NLDO, TRAI had commissioned Tata Consultancy services to give a report on 'Introduction of Competition in DLD Communication". In its report it has given a detailed assessment of the viability of National level operations. In para 142 of the report it has reached a conclusion that 'viability analysis of a national-wide

operator reflects that a DLDO will be very profitable in the first year of operations" In para 177 it records. "As compared to profitability of 22.7 percent during FY 2000-02 operations, the profitability is significantly higher at 35 percent in FY 2004-05". Profitability details are given in Table A-40.

4. In view of the above, we consider it reasonable and adequate to levy a license fees based on a revenue share of 16% (Sixteen percent) of the adjusted gross Revenue of the NLDO.

5. We are also of the view that it would strengthen the whole telecom sector since we would also like to very strongly recommend that the revenue share thus collected should be separately pooled in a Telecom Development Fund (to be constituted) for promoting improvements and development in the sector in consonance with the NTP objectives. This should, however, not be mixed up with the Universal Service Obligations for which universal service levy is to be worked out separately.

We, recommend a licence fee based on a revenue share of 16% (Sixteen percent). We would also like to recommend that the revenue share so realised should be credited to a separate Telecom Development Fund.

With kind regards,

Sd/-

(U.P.SINGH) (ARUN
SINHA) (R.R.N.PRASAD)

Mr. Justice S.S.Sodhi,

Chairperson,

Telecom Regulatory Authority of India, New Delhi.

MAJORITY VIEW ON THE DISSENT NOTE

PARAWISE COMMENTS

Three Members (Mr. U. P. Singh, Mr. Arun Sinha and Mr. R.R.N.Prasad) have dissented with the majority view on the percentage of the revenue share that may be charged as license fee from the National long distance operators (NLDOs). A copy of their "dissent note" is enclosed as Attachment xx. Points/ Issues mentioned in their Note and comments thereon, which have led to the majority view in the Authority, are as under:

a) The license fee based on revenue share should not be construed as to cover only the cost of administering the license fee. If that had been the case, the New Telecom Policy (NTP) 1999 would have clearly spelt it out as such.

Comments

- 1. Among the two key objectives of the NTP 1999 are access to telecom for all and development of world-class telecom infrastructure, both to sub-serve the nation's socio-economic goals of development. Affordable and effective communications for the citizens is at the core of the vision and goal of the telecom policy. Creation of a modern and efficient telecommunications infrastructure would also give impetus to the development of information technology which is a key to development of the country as a major part of the GDP of the country could be contributed by this sector. The aim as set out in the NTP 1999 while liberalizing the long distance communications is to promote setting up long distance bandwidth capacity in the country, provide choice to consumers, and promote competition.**
- 2. NTP 1999 has not laid down any guideline for fixing one-time entry fee or percentage of revenue share as annual license fee. It has only emphasized that for different telecom services there would be an appropriate level of entry fee and a percentage of revenue share arrangement, which would be decided in consultation with TRAI keeping in view the objectives of the New Telecom Policy 1999.**
- 3. In order to realize these objectives, appropriate policy framework needs to be put in place. Levy of license fee on the telecom operators is an important policy instrument in that context. Any license fee ultimately gets built into the cost of providing service to the consumer. High license fee would, therefore, defeat the objective of making the telecom services affordable, widespread, and for being used for the overall development of the country. This also has a distortionary effect on investment decisions and therefore, on the economy of the country as a whole. It has also an adverse impact on production costs of goods and services, which are dependent on the telecom input to a significant extent. In fact the distortion does not remain only to the extent that the high license fee component gets introduced in the tariff but it results in a cascading effect, introducing distortion in the same manner as**

- excise duty. Efforts are already underway to introduce Modvat concept to minimize such distortionary effects of excise duty.
4. Thus, even if the NTP does not categorically state that the license fee should be only to cover the costs of administering the License, the issues of affordability for the people, and use of telecom sector for promoting the information technology industry etc are the corner stone of the new policy framework. Any license fee, which is high, would be detrimental in achieving the overall objectives of the NTP 1999. Pegging the license fee at the level of covering the costs of administering the license is in consonance with the international practices apart from addressing the issues of affordability and promoting infrastructure.
 5. It is also pertinent to point out that in the consultation process there was overwhelming support for the view, partly adopted by the majority (as what is recommended is a higher figure), that the incidence of the fee should be such as to cover only the costs of administering the telecom regulatory system.
- b. The revenue share is intended to tap the rent available to a licensee, who is allowed by the licensor to operate in the market. The State desires and reserves the right to partake in the revenues or profits of the license, treating it as one of the sources of revenue generation for the State. This enables it to meet various obligations. The question whether the rent should be collected through a revenue sharing arrangement or by general taxation or by way of service tax or through all these means is really a question of modalities.
 - c. Taxation is unrelated to the nature of service provider and is subject to a host of adjustments before taxable profits are displayed. Revenue share on the other hand has a relationship as the value of service offered.

Comments

1. The majority in the Authority does not subscribe to the philosophy behind this approach. In our present phase of development, particularly in the infrastructure sector, which needs massive argumentation to propel the economy on a higher growth path, it is necessary to keep the costs down to the consumer so as to stimulate higher levels of demand. Telecommunications service costs may have a direct bearing on the nation's global competitiveness in several sunrise sectors. Besides, the most direct, transparent and non-distortionary manner of raising resources for the state in the case of the telecom sector is the service tax, which can be calibrated from time to time to meet the state's revenue requirement.
2. However from the point of view of understanding the basics of the issues pointed out in the Dissent Note on the taxes, service tax and revenue sharing arrangement, we may say that direct taxes normally take care of the profits earned by the service providers. Since they are direct in nature, it has low

- distortionary and inflationary impact on the economy. Service tax, on the other hand, is a tax that is passed on to the consumers. Even though service tax may act as a barrier towards its usage, tending to increase the price of the service, it is, however, better targeted. High license fee as a substitute to the service tax has more disadvantages as it creates distortion and inflationary impact on the economy. The price of the telecom service wherever the service is used as input would go up. This results into a cascading effect even if there is no further value addition to the service/ commodity. It would, therefore, not be appropriate to say that rent collected either through revenue sharing arrangement or general taxation or service tax is part of one or the same activity.
3. It is true that taxation is unrelated to nature of service provider and taxable profits are calculated after due adjustments for exemptions, rebates and incentives. But it would be appropriate to state that tax laws should not be considered only as an instrument for collecting revenues as they are also fiscal policy instruments to promote various objectives and goals of the Government. In fact various policy pronouncements by the Government find their expressions in tax laws for their implementation. The objective of creating a world class telecom infrastructure has also found expression in various tax statutes. Thus it may not be appropriate to state that taxation has no role to play in the development of infrastructure.
 4. Minimizing operational cost and improving efficiency is normally the objective of a firm in a competitive environment. The benefit of minimal operational cost results into lowering of the price to the customers. Thus a firm in a competitive environment is likely to plough back its profit into the business for expanding to achieve economies of scale, and for bringing technological and managerial changes, and thereby reducing its cost. The firm would also invest to increase its market share with the declining margins in telecom sector due to rapid technological developments and market competition.

d) It is reasonable and adequate to say that a license fee of the NLDO based on the revenue share be charged at 16% of the adjusted revenue.

Comments

1. The majority believe that 16% is an adhoc figure and is not related to any detailed viability study of the sector with cash flow analysis over a reasonably long period, say the license period. There is no basis to call it reasonable or adequate. Reliance on profitability as reflected in the viability analysis in the Consultation Paper is questionable. The sample analysis projected therein related to 40-city network. In the recommended competition scenario, the NLD service provider would roll out a national level network with coverage of uneconomic/ isolated areas. The actual profitability projections could be much different.

2. **The question of viability of service providers is closely linked to the affordability aspect, particularly in a country where a large section of the people are not likely to subscribe to the service if it is priced high and not made affordable. Thus the license fee should be such that it subserves the policy objectives linked thereto.**
3. **Information available on the entry /license fee structure for service providers in other countries (as given in Para 77 of the Explanatory Memorandum attached with the Recommendations) show that the license fee or entry fee in most of the countries are either nil or very low. Barrier in the shape of high entry is only to keep out the fly-by-night operators.**

e) License fee collected as revenue share should be separately pooled in a Telecom Development Fund (to be constituted) for promoting improvements and development in the sector in consonance with the NTP objectives. This should not be mixed with the universal service obligations.

Comments

- **The majority is also in favour of creating a separate fund such as Telecom Development Fund for promoting improvements and development in the sector in consonance with the objectives of NTP. But it does not in any manner suggest any justification of levying license fee at such high levels, which will have an inhibiting impact on the expansion and development of the services themselves. Such a fund may be created out of the revenue share that may be determined, which according to the majority, should be low. The actual cost of administering and regulating the licensing system is going to be much below that level.**
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DRAFT LICENSE AGREEMENT
FOR
NATIONAL LONG DISTANCE SERVICES

This Appendix contains the draft of the License Agreement for the provision of NATIONAL LONG DISTANCE (NLD) SERVICES, which has been finalised on the basis of the open consultative process.

LICENSE AGREEMENT

This AGREEMENT is made on the ____th day of (month) (year) between the **President of India** acting through Director, Department of Telecommunications (DOT), Sanchar Bhavan, 20– Ashok Road, New Delhi – 110 001 (**hereinafter called the LICENSOR**) of the ONE PART

and

M/s XYZ Ltd., a company registered under the Companies Act 1956, having its registered office at _____ (**hereinafter called the LICENSEE** which expression shall, unless repugnant to the context, include its successor in business, administrators, liquidators and assigns or legal representatives) of the OTHER PART.

WHEARAS in exercise of the powers under Sub-Section (2) of Section 4 of the Indian Telegraph Act, 1885, the Central Government delegated its powers to 'Telecom Authority' (hereinafter referred to as "Authority") by GSR 806 Gazette of India, Part II, Section 3 (i) dated 24th August, 1985; and

WHEREAS pursuant to the request of the LICENSEE, the LICENSOR has agreed to grant this License to install, operate and maintain NATIONAL LONG DISTANCE SERVICE NETWORK and to provide NATIONAL LONG DISTANCE SERVICES in India. This License is valid for a period of 20 years from the date of issue on the terms and conditions appearing hereinafter unless revoked earlier by the Licensor under the procedures prescribed elsewhere in this License. Having agreed to accept the same, the LICENSEE shall abide by the terms and conditions set out in this license agreement and ensure compliance thereof including payment of licence fee.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

In consideration of observance of mutual covenant, the payment of licence fee, and due performance of all the terms and conditions on the part of the LICENSEE, the LICENSOR does, hereby grant, on a non-exclusive basis, the license to establish and operate the NLD Network and provide Services, on the terms and conditions mentioned in this license agreement.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed through their respective authorised representatives on the (day) (month), (year).

The Licensee hereby agrees and undertakes to fully comply with all terms and conditions stipulated in this License Agreement without any deviation and reservation.

Signed and Delivered for and on behalf of President of India

By

Director, DoT

Signed on behalf of M/S XYZ Ltd. by Mr. _____, Managing Director, holder of General Power of Attorney dated xxx, executed in accordance with the Resolution No. ____ dated _____ passed by the Board of Directors of M/S XYZ Ltd.

In the presence of:

Witnesses:

TERMS AND CONDITIONS

1. Ownership of the Licensee Company

1. The LICENSEE shall ensure that the total foreign equity in the LICENSEE Company does not, at any time, exceed 49% of the total paid up equity. The details of the Indian & Foreign partners/promoters with their respective equity holdings in the LICENSEE Company (as on the

date of the signing of the license agreement are given in the Appendix ____). Any change in the Indian and Foreign partner(s) or their equity participation, which has the effect of changing the management control over the LICENSEE company or a shift in its legal entity shall not be made without the prior approval of the LICENSOR.

Provided that the change in equity, as referred to above, shall not mean or include any change resulting from transfer of shares held by the public, whether comprising of natural or artificial persons, and shall mean and include only such change as would result in change in the effective management and control of the Licensee company.

Note: Format of the details to be furnished is as below:

| Sr.No | Name of Promoters/Technology Providers/Equity Holders | Indian/ Foreign | Value of Shares | No. of Shares | Equity % age |
|-------|---|--------------------|-----------------|---------------|--------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

- The Licensee shall disclose complete details of terms and conditions, and obligations under all contracts/ licenses entered into with Infrastructure providers and/ or other service providers on sharing of infrastructure / backbone for the provision of service under this License. This information shall be furnished to the Licensor along with authenticated copies of all such contracts/ licenses prior to commencement of services. The information shall be regularly updated during the validity of the license.

2. Scope of the License

- This License is issued to provide Service as defined in the Annex to this License Agreement on a non-exclusive basis i.e. other companies may also be granted license for the same service at the discretion of the Licensor. Licensor on its own or through a designated Public Authority has the right to operate the service in any part/ whole of the country on similar terms and conditions to ensure level playing field.
- A network connecting different local areas is defined as the long distance network. NLD service would cover the carriage of switched bearer

telecommunication services over a long distance network. NLD service provider is expected to provide the required digital capacity to carry long distance telecommunication services, which may include various types of tele-services defined by the ITU such as voice, data, fax, text, video and multi-media services.

3. It is obligatory upon the LICENSEE to provide all the above services by establishing a state-of-the-art digital network.
4. Any dispute with regard to the service shall be a matter between the subscriber and the licensee only. The licensee shall suitably notify the above to all his subscriber(s) before provisioning of the service.

3. Network Standards

1. The LICENSEE will ensure adherence to the national fundamental technical plan and network technical standards specified by the designated authority in this respect from time to time.
2. In case of new technologies where no standards have as yet been determined, the LICENSEE will seek the approval of the designated authority before deploying them. In such cases it will adopt the standards specified by TEC/ ITU. However, such technologies should have been tested for use internationally for at least one year.

4. Duration of License

1. This License shall enter into force on..... and shall be of 20 years duration in the first instance, if not revoked earlier.

5. Extension of License

1. The period of licence can suitably be extended if requested by the LICENSEE latest by the end of 19th year from the effective date. The extension in the Licence period will be granted by the LICENSOR for a period of 10 years at one time on the existing terms and conditions. In case of any change in the proposed terms and conditions of License for the extended period, TRAI's recommendations will be taken.

6. License Fee

Entry Fee

6.1 One-time **Entry Fee** of Rs. 500 Crores is payable by the LICENSEE in consideration for the grant of this License for the complete duration for which this License is in existence. The License fee payable against this License agreement shall not be adjusted against any other dues of the LICENSEE. An amount of Rs. 400 Crores out of this entry fee would be

admissible to the LICENSEE for refund in terms of the clause 7.3 of this License Agreement.

Annual License Fee as a Percentage of Revenue Share

2. In addition, the Licensee shall also pay annually five percent of the **Revenue** generated from the Service as **Revenue Share** in accordance with the procedure prescribed in this License. The annual License fee will be computed from the date of commencement of the services.

7. Modalities for Payment of Licence Fee

Entry Fee

1. The licensee shall be required to deposit the entry fee before the NLD license is signed.
2. A portion of the entry fee i.e. Rs. 100 Crore would be paid in cash, which would be non-refundable.
3. Balance entry fee of Rs.400 Crore would be in the shape of a refundable deposit to be used as an incentive to ensure timely roll out of the network as mentioned in this LICENSE AGREEMENT. The LICENSEE shall securitize this amount of entry fee in the shape of Bank Guarantees (BG) or investment in Tax Free Government Bonds with licensor's lien on the bonds. The BG or the Bonds (along with accrued interest) should be released, as under, in favour of the licensee subject to phased completion of the network roll out as stipulated in Clause 9.2 of this License agreement:

Completion of Phase I Rs. 100 crore

Completion of Phase II Rs. 100 crore

Completion of Phase III Rs. 200 crore

Annual License Fee as a Percentage of Revenue Share

4. Annual license fee under the Revenue Sharing arrangement shall be payable in four quarterly installments during the financial year. Each quarterly installment shall be paid in advance within 15 days of the commencement of the first calendar month of that quarter. The year for the purpose of license fee shall be the financial year ending 31st March. License fee for each quarter shall be paid provisionally by the Licensee on self-estimation of the Revenue for that quarter. Final adjustment of the license fee for the financial year shall be made on or before 30th June of the following year based on revenue figures duly certified by the

Chartered Accountant engaged by the Licensee for auditing the Annual Accounts of the Licensee company.

5. Any delay in payment of license fee beyond the stipulated period will attract interest at the Prime Lending Rate (PLR) of State Bank of India as notified from time to time, and further increased by two percent per annum. The interest shall be compounded monthly at the rate (s) applicable for the period (s) of default. A part of the month shall be reckoned as a full month for the purposes of calculation of interest.
6. While progressive quarterly payments are likely to be at variance with reference to the final liability based on audited accounts, the Annual License Fee payments should be as accurate as possible. Any under-statement of interim quarterly payments beyond twenty percent of the final calculation shall attract a penalty (not exceeding the amount of short payment) in case the Licensee fails to show that the under-statement was not deliberate, and that the projections were reasonable as per the then obtaining circumstances.
7. Payments of licence fee becoming due and payable as mentioned in this License Agreement shall be paid by the LICENSEE through a demand draft drawn on any Scheduled Bank in New Delhi in favour of the Pay & Accounts Officer (HQ), DOT or any other Authority as may be designated by DOT from time to time.
8. If due payment is not received within the stipulated time, the outstanding license fee shall be recovered by adjustment of such unpaid amounts through the Bank Guarantee, after affording an opportunity to the Licensee. In addition, the LICENSOR may also initiate steps for termination of the licence in accordance with the provisions of this license after affording an opportunity to the LICENSEE and after obtaining the recommendations of the TRAI. This is without prejudice to any other remedy that the LICENSOR may decide to resort to for realisation of the annual fee under the revenue sharing percentage.

8. Financial Conditions

a) Bank Guarantee

1. The licensee shall submit a financial bank guarantee of an amount commensurate with the annual licence fee in the format prior to the signing of the licence agreement. The LICENSEE shall submit the Financial Bank Guarantee from any Scheduled Bank, to be renewed from time to time and initially valid for a period of two years.
2. The licensee will be liable to extend the validity of the financial Bank Guarantee one month prior to its date of expiry on its own without demand from the Licensor for a further period of one year on year to year basis during the full currency of the licence. Any failure to do so may result in the en-cashing the financial bank guarantee after affording a reasonable opportunity to the LICENSEE. This is without prejudice to any other action that may be taken under the terms and conditions of the licence.

3. Without prejudice to its right to some other remedy, the LICENSOR may encash Financial Bank Guarantee (in part or in full) in case of any other breach in the terms and conditions of the licence by the LICENSEE. Such an action will, however, be taken after affording an opportunity of hearing to the LICENSEE.
4. Breach of non-fulfilment of licence conditions may come to the notice of the LICENSOR through complaints or as a result of the regular monitoring. Wherever considered necessary, LICENSOR will conduct an inquiry to determine whether there has been any breach in compliance of the terms and conditions of the Licence. The LICENSEE will be given an opportunity before any action adverse to his interest is taken and recommendations of the TRAI will be taken before revoking the license.

b) Preparation of Accounts:

5. The LICENSEE will draw, keep and furnish independent accounts for each segment of Licensed services as required by the LICENSOR and TRAI vide its regulations, directives and notifications in this respect issued from time to time.
6. The LICENSEE shall:
 - a) Compile and maintain accounting records, sufficient to show and explain its transactions in respect of each completed quarter of the License period during which this License Agreement is in force, or of such lesser periods as the LICENSOR may specify, fairly presenting the costs (including capital costs), revenue and financial position of the LICENSEE's business including a reasonable assessment of the assets employed in and liabilities attributable to the LICENSEE's business, as well as, for the quantification of Revenue or any other purpose.
 - a. Procure in respect of each of those accounting statements prepared in respect of a completed financial year, a report by the LICENSEE's Auditor stating whether in his opinion that statement is adequate for the purpose of this condition; and deliver to the LICENSOR a copy of each of the accounting statements not later than three months after the end of the period to which they relate. In this condition, the "Auditor" means the Licensee's auditor for the time being appointed in accordance with the requirements of the Companies Act, 1956 or any other law in force.
 - b. Send to the Licensor a certified statement of Revenue from the Service for each quarter before the end of calendar month following the quarter.

8.7 The LICENSOR/ TRAI shall have right to examine or requisition any books of accounts that the LICENSEE may maintain in respect of this License for any purpose without assigning any reason thereof to the LICENSEE.

9. Delivery of Service

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1. The LICENSEE will commence and provide services as per the schedule prescribed in this agreement. The LICENSEE will offer services on demand to its customers unless the designated authority has granted any extension for commencing/commissioning of services.
2. The licensee shall submit circle-wise network roll out plan for national coverage in four phases extending up to seven years from the effective date of license. The roll out plan must ensure minimum network coverage as under:

Table 1 Performance Obligation Schedule

| Phase | Time Period for completion from Zero date (i.e. Effective date of License) | Cumulative Percentage of National coverage in terms of Points of Presence (POP) required at the end of each phase | |
|-------|---|---|--|
| | | Total LDCAs | Coverage out of all the Uneconomic/ Remote areas to be included while establishing PoPs in LDCA |
| I | 2 years | 15% | 2% |
| II | 3 years | 40% | 4% |
| III | 4 years | 80% | 7% |
| IV | 5 - 7 years | 100% | All |

10. Universal Service Obligation

10.1 The LICENSEE would be required to contribute towards universal access levy or any other charge for meeting the universal service obligation as may be determined by the competent authority from time to time.

11. Requirement to furnish Information to TRAI and LICENSOR

11.1 The LICENSEE shall submit information to TRAI as per the regulation or/ and directive that may be issued from time to time.

11.2 The LICENSEE shall also furnish information to the LICENSOR as directed from time to time.

12. Restrictions on Transfer of License

12.1 The LICENSEE shall not, without the prior written consent of the Licensor, either directly or indirectly, assign or transfer its rights as per this license in any manner whatsoever to any other party. The LICENSEE may, however, enter into an agreement with any third party in part for sub-licence and/or partnership for the resale of service as per this licence with prior intimation to the Licensor. The installation and/ or operations of systems, equipment, and network or part thereof can be given on contract.

2. The written consent permitting transfer or assignment of the License may, however, be granted in accordance with the terms and conditions, and procedures described in Tripartite Agreement if duly executed amongst LICENSOR, LICENSEE and LENDERS.

13. Modifications in the Terms and Conditions of License

1. The LICENSOR reserves the right to modify at any time the terms and conditions of the License, in consultation with the TRAI and after affording an opportunity to the Licensee, if in the opinion of the LICENSOR it is necessary or expedient to do so in public interest or for the proper conduct of telegraphs or for extension of License. Provided that the Licensor may without any consultation modify the terms and conditions of the License in the interest of the security of the State.

14. Termination of License

1. The LICENSOR may, without prejudice to any other remedy for the breach of conditions of licence, by written notice of reasonable time issued to the LICENSEE at its registered office, seek termination of this license in whole or part under any of the following circumstances:
 - a. In case the LICENSEE fails to commission or deliver the SERVICE within the time period(s) specified in the licence or in any extension thereof, if granted by the LICENSOR; or

b. In case the LICENSEE fails to perform any other obligation(s) under the licence including remittance of timely payments of Licence fee due to the LICENSOR; or

c) In case the LICENSEE does not rectify the failure, as may be pointed out to the LICENSEE, within a notice period of 30 days or during such further period as the LICENSOR may authorise in writing in this regard; or

d) In case the LICENSEE becomes bankrupt or otherwise insolvent. In that event, the LICENSOR may terminate the licence even without compensation to the licensee. Such termination shall not prejudice or affect any right of action, which has accrued or will accrue thereafter to the LICENSOR. The right of termination will arise on the LICENSEE being adjudicated or applying for being adjudicated as bankrupt.

Provided that the recommendations of the TRAI will be taken before revoking the License. In the event the TRAI recommends the revocation of the license after affording an opportunity to the LICENSEE, the LICENSOR may give 30 days written notice to the LICENSEE for revoking the license. However, in the event the TRAI does not recommend the revocation but the LICENSOR still decides to revoke the license, a written notice of at least 90 days shall be given to the LICENSEE.

1. If the LICENSEE intends to surrender the licence, it shall give an advance notice of at least 60 days to the Licensor to this effect. If the service is in operation, the licensee shall also intimate its subscribers of consequential withdrawal of service by serving a 30 days notice to them. The licensee shall be liable to pay the revenue sharing percentage till the end of the notice period.
2. During the period when a notice for termination of licence is pending, the Quality of Service to the Subscribers as defined for the purpose shall be maintained. If the Quality of Service is not maintained during the notice period, it will be treated as breach of licence conditions and will be dealt with as such.

15. Actions pursuant to Termination of License

1. In the event of termination of the licence, the LICENSOR may procure upon such terms and conditions and in such manner as deemed appropriate, if necessary in public interest, such required resources as had not been installed, delivered or brought into commission by the Licensee so as to enable the provision of the Service.

2. Whenever the licence is terminated or not extended, the LICENSOR may if it considers necessary in public interest in order to ensure the continuity of the SERVICE take such steps as necessary including the issue of license to another Indian Company for running the SERVICE. In such circumstances, LICENSEE shall receive from the new LICENSEE, as the case may be, reasonable compensation for the assets made over.
3. Whenever the licence is terminated or not extended, the LICENSEE shall facilitate taking over by the new LICENSEE all those assets as are essential for the continuity of the SERVICE. The LICENSEE shall be liable to the LICENSOR for any excess/extra costs for such corrective efforts. The criteria for determining the terms and conditions for such procurement will depend upon the market prices prevailing at the time of procurement. The decision of the LICENSOR in this matter shall be final in all respects.
4. In case for any reasons the service cannot be continued, priority will be given to refund the deposits made by the subscribers with the LICENSEE.

15.4 Any sum of money due and payable to the LICENSEE (including earnest money refundable to the Licensee) under this licence may be appropriated by the Government or any other person or persons through the Government of India. The same may be set off against any claim of the Government or of such other person(s) for payment of any sums of money arising out of this licence or under any other licence made by the LICENSEE with the Government, or such other person or persons including TELECOM AUTHORITY contracting through Government of India.

5. The Financial Bank Guarantees shall be returned to the licensee company 6 months after the termination of the licence and after ensuring clearance of any dues which the licensee company is liable to pay, including the dues payable to the subscribers. In case of failure of the licensee to pay the dues, the outstanding amounts shall be realised through encashment of Bank Guarantee, without prejudice to other action(s) for recovery of amounts due to the Licensor, which are not secured by the Financial Bank Guarantee.

16. Obligations imposed on the Licensee

1. The provisions of the Indian Telegraph Act 1885, the Indian Wireless Telegraphy Act 1933, and the Telecom Regulatory Authority of India Act, 1997 as modified from time to time shall govern this license.
2. The Licensee shall furnish all necessary means and facilities as required for the application of provisions of Section 5(2) of the Indian Telegraph Act, 1885, whenever occasion so demands. Nothing provided and contained anywhere in this License Agreement shall be deemed to affect

adversely anything provided or laid under the provisions of Indian Telegraphs Act, 1885 or any other law in force.

3. The LICENSEE shall not, in any manner whatsoever, transfer the licensing rights granted to it to any other party. Any violation shall be construed as a breach of licence.

17. Interconnection

a) Network Connectivity

1. The LICENSEE shall make suitable arrangements with other service providers with a view to negotiating Interconnection Agreements (or an amendment to an existing agreement) whereby the interconnected networks would mutually agree to the following :
 - a. To connect, and keep connected, to their Applicable Systems,
 - b. To establish and maintain such one or more Points of Interconnect as are reasonably required and are of sufficient capacity and in sufficient number to enable messages conveyed or to be converted by means of the Applicable Systems,
 - c. To convey messages in such a way as conveniently to meet all reasonable demand for the conveyance of messages between the interconnected systems.
1. The terms and conditions of interconnection including standard interfaces, points of interconnection and technical aspects will be as per directives of TRAI and the designated authority, issued by them from time to time.
2. The LICENSEE shall comply with any order/ regulation by the TRAI under interconnection regulations to inspect any agreements, arrangements and equipment.

b) Interface

3. The LICENSEE shall operate and maintain the licensed Network conforming to Quality of Service standards to be mutually agreed in respect of Network- Network Interface. For the purpose of providing the SERVICE, the LICENSEE shall install his own equipment so as to be compatible with other service providers' equipment to which the licensee's Applicable Systems are intended for interconnection.
4. The additional telecommunication resources for the provision of the service and networking the geographically dispersed equipment of the LICENSEE shall be leased/ rented on mutually agreed terms from service providers including DOT, MTNL, VSNL or other Service providers or Infrastructure providers. The same will be governed by the orders/ notifications of the TRAI issued from time to time on interconnection/ access charges.

5. The charges for accessing other networks shall be based on mutual agreements between the service providers conforming to the Orders/ Regulations/ Guidelines issued by the TRAI from time to time.
6. The network resources including the cost of upgrading/ modifying interconnecting networks to meet the service requirements of DLD service will be mutually negotiated keeping in view the orders and regulations issued by the TRAI from time to time.

18. Tariffs

1. The LICENSEE will establish the tariffs for services as per the TRAI regulations/directives issued in this regard from time to time. The LICENSEE shall also fulfil requirements regarding publication of tariffs, notifications and provision of information as directed by TRAI through its regulations/directives issued from time to time.

19. Customer Service

1. The LICENSEE shall provide the service to any individual or legal person, without any discrimination, unless directed by the LICENSOR in writing. The LICENSEE shall not in any manner discriminate between subscribers of the same class and such classifications of subscribers shall not be arbitrary.

Provided that nothing contained herein will affect or prejudice the rights of the Licensee to carry out check on creditworthiness of its prospective subscribers.

2. The LICENSEE shall ensure continuity of services to its customers during pendency of the license.
3. The LICENSEE's contractual obligations will include terms and conditions under which the services may be obtained, utilised and terminated. The LICENSEE will also specify the arrangements with respect to billing, repair, fault rectification, compensation or refunds in case contracted services, are not supplied. In case no such arrangements are available a statement to that effect will also be included in the offer.

20. Customer Billing

20.1 The LICENSEE can either offer billing services itself or arrange for another entity or through the Access Provider to provide such services to

its customer. In either case the LICENSEE shall be responsible to customers and shall ensure fulfilment of all obligations in this regard. Any violations of any directives and regulations or terms in this respect will result in penalties for the LICENSEE only.

2. The LICENSEE shall be required to follow the billing cycle in this respect as per TRAI directives/regulations. The LICENSEE will also maintain records necessary for the billing cycle as specified by TRAI from time to time.
3. This LICENSEE will provide itemised billing to its customers without extra charges. The basic level of itemised billing format will be as specified by TRAI. However, in case a customer requires additional details, the same will need to be supplied at charges as specified by TRAI in this respect.
4. All complaints of customers in this regard will be addressed /handled as per TRAI regulations/ directives issued from time to time.

21 Confidentiality of customer information

21.1 Any encryption equipment connected to the LICENSEE's network for specific requirements has to have prior evaluation and approval of the LICENSOR or officer specially designated for the purpose. However, the LICENSEE shall have the responsibility to ensure protection of privacy of communication and to ensure that unauthorised interception of message does not take place.

2. The LICENSEE shall take all reasonable steps to safeguard the privacy and confidentiality of any information about a third party and its business to whom it provides services and from whom it has acquired such information by virtue of those services and shall use its best endeavours to secure that:
 - a. No person acting on behalf of the LICENSEE or any member of the LICENSEE's group divulges or uses any such information except as may be necessary in the course of providing such services to the Third Party; and
 - b. No such person seeks such information other than is necessary for the purpose of providing services to the Third Party.

The above does not apply where:

- a. The information relates to a specific party and that party has consented in writing to such information being divulged or used, and such information is divulged or used in accordance with the terms of that consent , or
- b. The information is in the public domain.

2. The LICENSEE shall take reasonable steps to ensure that the LICENSEE and any persons acting on its behalf and members of the LICENSEE's group and any persons acting on their behalf observe confidentiality of customer information.
3. The LICENSEE shall prior to commencement of service confirm in writing to the LICENSOR that the LICENSEE has taken all reasonable steps to ensure that it and its employees are observing confidentiality of customer information.

22. Quality of Service

1. The LICENSEE shall ensure the Quality of Service (QoS) as per the directives and regulations issued by the TRAI from time to time or as prescribed by the LICENSOR. The LICENSEE shall adhere to such directives and provide timely information as required therein. Defaults in compliance in this respect will be penalised as specified by the TRAI QoS regulations.
2. The LICENSOR/ TRAI reserves the right to carry out performance tests and also evaluate the QoS parameters in LICENSEE's network at any time during the tenure of the licence. Such QoS standards will, however, be in accordance with the regulations and orders issued by the TRAI from time to time.
3. The LICENSEE shall have the responsibility to ensure QoS, as notified by the TRAI, from the infrastructure provider (s) with whom it may enter into agreement/ contract for leasing/ hiring/ buying or any such instrument for provision of infrastructure or provision of bandwidth and/ or switch capacity.

23. Security Conditions

1. LICENSOR shall have the right to take over the SERVICE, equipment and networks of the LICENSEE, (either in part or in whole of the service area) in case any directions are issued in the public interest by the Government, in the event of emergency or war or low intensity conflict or any other eventuality. Any specific orders or directions from the Government issued under such conditions shall be applicable to the LICENSEE and shall be strictly complied with.
2. The LICENSEE shall make available on demand to the agencies authorised by the Government, full access to the switching centres, transmission centres, routes etc. for detailed technical security/inspection for espionage, subversive act, sabotage or any other unlawful activity.
3. All foreign personnel likely to be deployed by the LICENSEE for installation, operation and maintenance of the licensed network shall be security cleared by the Government of India prior to their deployment. The

security clearance will be obtained from the Ministry of Home Affairs, Government of India.

4. LICENSOR reserves the right to modify these conditions or incorporate new conditions considered necessary in the interest of national security.
5. LICENSEE will ensure that the Telecommunication installation carried out by him should not become a safety hazard and is not in contravention of Laws of the land.

24. Prohibition of certain Activities by the Licensee

1. The Licensee shall not hereunder engage in the provision of any other Service other than NLD Service as defined in this license agreement.
2. To remove any doubt, it is, hereby, clarified that nothing contained in condition in Para above shall preclude the Licensee from engaging in advertising and promotional activities relating to any of the Applicable Systems.
3. The Licensee shall take measures that prevent the objectionable, obscene, unauthorised or any other content, messages or communications infringing copyright, intellectual property etc., in any form, from being carried on his network, consistent with the established laws of the country. Once specific instances of such infringement are reported to the LICENSEE by the authorised agencies, the licensee shall ensure that the carriage of such material on his network is prevented.
4. The Licensee is obliged to provide, without any delay, tracing facility to trace nuisance or malicious calls, messages or communications transported through his equipment and network. Any damages arising out of default on the part of licensee in this regard shall be payable by the licensee.
5. In case any confidential information is divulged to the Licensee for proper implementation of the Agreement, it shall be binding on the Licensee and its employees and servants to maintain its secrecy and confidentiality.

25. Inspection and Testing of Installations

1. The Licensor will also carry out all performance tests required for successful commissioning of the service, if it so desires, before the service is commissioned for public use. The LICENSEE shall supply all necessary literature, drawings etc regarding the equipment installed for commissioning of the services, and shall also supply all the tools, test instruments and other accessories to the testing party of the LICENSOR for conducting the tests. The list of performance tests will be furnished by the LICENSEE one month prior to the date of commissioning to the Licensor. In case the Licensor chooses to conduct performance test and some deficiency is found therein by the licensor, the delay caused for rectification of the deficiencies, if any, for the commissioning/ provisioning of the service will be entirely on account of the Licensee.

2. The Acceptance Testing for each and every interface with the DOT/ MTNL/ VSNL/ or other Service Provider may be carried out by mutual arrangement between the Licensee and the other party involved. The Acceptance Testing schedule shall be mutually agreed. Adequate time, not less than 30 days, will be given by the Licensee for these tests.

26. Right to Inspect

1. The Licensor, the TRAI or their authorised representative shall have the right to inspect the sites used for extending the Service. The Licensor shall, in particular but not limited to, have the right to have access to leased lines, junctions, terminating interfaces, hardware/software, memories of semiconductor, magnetic and optical varieties, wired options, distribution frames, and to enter into dialogue with the system through Input/output devices or terminals. The Licensee will provide the necessary facilities for continuous monitoring of the system, as required by the Licensor or its authorised representative(s). The Licensor will ordinarily carry out inspection after reasonable notice except in circumstances where giving such a notice will defeat the very purpose of the inspection.

27. Location of Switches

1. The LICENSEE shall provide to the LICENSOR location details of switching centres, transmission centres, including routing details etc., and location of these centres shall not be changed without prior approval of the LICENSOR.

28. Requirement to furnish Information

1. The Licensee shall furnish to the Licensor as well as to the TRAI, in the manner and as per the time frames that these Authorities may demand, such documents, accounts, estimates, returns, reports or other information in accordance with the rules/ orders as may be prescribed.
2. Engineering Details:
 - a. The Licensee shall furnish to the Telecom Authority, in such manner and at such times as the Authority may require, complete technical details with all calculations for engineering, planning and dimensioning of the system/network, concerned relevant literature, drawings, installation materials regarding the applicable system.
 - b. List of performance tests shall be furnished by the Licensee one month prior to the date of commissioning of service.
 - c. Licensee shall supply all tools, test instruments and other accessories to the testing party of Licensor for conducting tests, if it so desires.

29. Disputes Settlement

29.1 If a dispute arises, in respect of any matter referred to in the License Agreement between Service Providers or between the Licensor and the Licensee, such disputes shall be decided in accordance with the provisions of the TRAI Act 1997.

30. Miscellaneous Conditions

a) Interpretation of Terms/ Definitions

1. Unless the context otherwise requires, the different terms and expression used in this license agreement shall have the meaning assigned to them as explained in Annex to this License Agreement. Appendix.

b) Force- Majeure

31.2 If at any time, during the continuance of this licence, the performance in whole or in part, by either party, of any obligation under it is prevented or delayed, by reason of war, or hostility, acts of the public enemy, civic commotion, sabotage, fire, flood, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the Licensee), or act of GOD (hereinafter referred to as event), provided notice of happenings of any such EVENT is given by either party to the other, within 21 days from the date of occurrence thereof, neither party shall, by reason of such event, be entitled to terminate the licence, nor shall either party have any such claims for damages against the other, in respect of such non-performance or delay in performance. Provided service under the licence shall be resumed as soon as practicable, after such EVENT comes to an end or ceases to exist. The decision of the Licensor as to whether the service may be so resumed (and the time frame within which the service may be resumed) or not, shall be final and conclusive. However, the Force Majeure events noted above will not in any way cause extension in the period of the License. While it will normally not be a ground for non-payment of licence fee, the liability for payment of license fee for such inoperative period(s) due to force majeure clause may, however, be reduced/waived by the LICENSOR, at its discretion based on circumstances of the EVENT.

31.3 The Licensee shall be bound by the terms and conditions of this License Agreement as well as by such orders/ regulations and instructions as are issued by the Licensor/ TRAI and/or their successors from time to time.

4. All matters relating to this License will be subject to jurisdiction of Courts in Delhi/ New Delhi.

ANNEX.

**DEFINITIONS AND INTERPRETATIONS RELATING TO THE EXPRESSIONS
USED IN
THE TERMS & CONDITIONS OF NLD SERVICES LICENSE AGREEMENT**

Unless the context otherwise requires, the different terms and expression used in the license agreement shall have the meaning assigned to them as explained in the following paragraphs:

1. "**Applicable Systems**" means all the necessary equipment/ sub-systems engineered to provide Domestic Long Distance Service in accordance with operational, technical and quality requirements and other terms and conditions of the License agreement.
2. "**Auditor**" means the LICENSEE's auditor for the time being appointed in accordance with the requirements of the Companies Act, 1956.
2. "**Customer**" means any person or legal entity, which subscribes to/avails of the Domestic Long Distance Service from the LICENSEE.
4. "**Designated Authority**" is the entity authorised empowered to issue instructions and obtain adherence to them with respect to specific –designated- issues.
5. "**DOT**" means Department of Telecommunications, Government of India.
6. "**DTS**" means Department of Telecom Services, Government of India.
7. "**Infrastructure Provider (s)**" would mean entities, which provide inactive elements of the telecom network including dark fibers, right of way, duct space, towers and buildings etc. as well as those who provide end-to-end raw bandwidth on a long-term basis. The utilities (as Infrastructure Providers) would also fall essentially in one of these categories.
8. "**Interconnection**" is as defined by the TRAI vide its regulations issued in this respect.
9. "**International services**" mean telecom services originating in the country and terminating outside the country.
10. "**LICENSE**" means a licence granted or having effect as if granted under section 4 of the Indian Telegraph Act 1885 and Indian Wireless Act 1933.
11. "**LICENSEE**" is the registered Indian Company that has been awarded License to set up and operate Domestic Long Distance network and to provide the DLD service.
12. "**LICENSOR**" refers to the President of India acting through any authorized person, who grants Licence under Section 4 of Indian Telegraph Act 1885 and Indian Wireless Telegraph Act 1933, unless otherwise specified.

13. "**LOCAL AREA**" is the geographical area served by an exchange or an exchange system. Calls originating and terminating within the same local area are charged at local call rates. Remote Subscribers' Unit and Concentrators are to be treated as an exchange for the purposes of this definition.
14. "**Long Distance Network**" is a network of transmission and switching elements connected in a predetermined fashion to provide switched bearer interconnection between different local areas. Physically the network elements may be co-located or be a part of bigger elements.
15. "**Long Distance call**" may be defined as a call terminating in a local area other than in which it was originated. Carriage of a long distance call is the licensed function of a NLD service provider. A long distance call may be charged at the rate of a local call for various considerations. What is relevant is the 'carriage' and not the 'charge', which determines the classification.
16. "**Message**" means anything falling within sub Clause/paragraph (3) of section 3 of the Indian Telegraph Act 1885.
17. "**MTNL**" means Mahanagar Telephone Nigam Limited.
18. "**National Long Distance (NLD) Service**" is a switched bearer service providing for carriage of various tele-services over long distances over a long distance network.
19. "**National Long Distance Service provider**" is the telecom operator providing the required digital capacity to carry long distance telecommunication services, which may include various types of tele-services defined by the ITU, such as voice, data, fax, text, video and multi-media etc.
20. "**Quality of Service**" is evaluated on the basis of observable measure on the grade of service, calls lost due to wrong processing, the bit error rate or the response time and also included acceptable grade of number of faults per unit population of the subscriber served, the mean time to restore (MTTR), faults carried over beyond the MTTR and the satisfactory disposal thereof.
21. "**Revenue**" for the purpose of levying license fee as a percentage of revenue shall mean the Gross Revenue accruing to the licensee by way of operations of providing NLD service mandated under the license (including the revenue on account of supplementary/ value added services and leasing of infrastructure), as reduced by the charges payable to other service providers to whose networks the NLD network is interconnected for carriage of calls.
22. "**Service area**" is the bounded geographic region within which the LICENSEE is licensed to provide services.
23. "**Service(s)**" means Domestic Long Distance services and shall include the tele-services, bearer services and supplementary services as described in Clause of this License agreement.
24. "**Subscriber**" means any person or legal entity, which avails of the Domestic Long Distance Service from the LICENSEE.
25. "**TARIFF**" means rates and related conditions at which telecommunication services within India and outside India may be provided including rates and related conditions at which messages shall be transmitted, deposits, installation fees, rentals, free calls, usage charges and any other related fees or service charge.

- The term tariff will have the same meaning as may be defined in the Telecommunication Tariff Orders to be issued by the TRAI from time to time.
26. "**TRAI**" means Telecom Regulatory Authority of India constituted under TRAI Act, 1997.
 27. "**VSNL**" means "Videsh Sanchar Nigam Ltd."
