



Telecom Regulatory Authority of India

Recommendations on Terms and Conditions for

National Integrated Directory Enquiry Service (NIDQS) for Fixed and Mobile Telephones

19th June, 2008

Telecom Regulatory Authority of India

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PREFACE

Telephone Directory Enquiry (DQ) Service is an important public utility service. In view of the perceived need for integrated directory enquiry service in the multi-operator multi-service scenario, the Authority had undertaken public consultation on the issue of publication of Telephone Directory and Directory Enquiry Service in 2004 and made its recommendations to the Government on 5th May, 2005. The recommendations for Directory Enquiry Service included introduction of new licence for integrated directory enquiry service covering fixed and mobile telephones at the circle level and at the national level.

The Department of Telecommunications (DOT) had considered these recommendations and requested TRAI to formulate the terms and conditions, including guidelines, for publication of an integrated telephone directory for the fixed line telephones Secondary Switching Area (SSA)-wise i.e. at Long Distance Charging Area (LDCA) level and also for licensing National Integrated Directory Enquiry Service.

With a view to bring out all the related aspects of the issue and to provide a suitable platform for discussion, a consultation paper was issued on 24th December, 2007. The consultation paper discussed various issues pertaining to printing of telephone directory for fixed line telephones SSA-wise and Directory Enquiry Service, including introduction of a new licence for National Integrated Directory Enquiry Service. The comments received from stakeholders on the issues raised in the consultation paper were posted on the TRAI website and an Open House Discussion was held in Delhi on 11th February, 2008.

Taking into account the comments received from stakeholders during public consultations, the Authority had formulated its recommendations to the Government on the terms and conditions for publication of integrated telephone directory for fixed line telephones. While finalizing these recommendations, the Authority noted that different licenses have different provisions relating to publication of telephone

directory and directory enquiry services. Accordingly, in the recommendations the Authority has proposed certain amendments to the various access service licence agreements, keeping in view the requirement for publications of integrated telephone directory for fixed line telephones SSA-wise and for the National Integrated Directory Enquiry Service (NIDQS). The recommendations for publication of telephone directory for fixed line telephones, which also included the proposal for amendment in Indian Telegraph Rules 1951 pertaining to telephone directory and amendment of various access service licence agreements to pave way for publication of integrated telephone directory for fixed line telephones and directory services, were sent to the Government on 24th April, 2008.

Regarding the terms and conditions for the license for National Integrated Directory Enquiry Service (NIDQS), the Authority had further undertaken a sample survey through consumer organisations registered with TRAI as to the approach to be followed for including mobile numbers for directory enquiry service. Keeping in view the responses of the stakeholders received during public consultation and the results of the sample survey, the Authority has formulated the recommendations on the terms and conditions of licence for the National Integrated Directory Enquiry Service (NIDQS). The determination covering the guidelines for National Integrated Directory Enquiry Service (NIDQS) will be formulated and the same will be issued by the Authority as and when the licence for National Integrated Directory Enquiry Service (NIDQS) is issued by the Department of Telecommunications after acceptance of these recommendations.

New Delhi.
Dated 19th June, 2008.

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CHAPTER-I

INTRODUCTION

Background

1.1. TRAI had submitted its recommendations to the government vide its letter No: 305-12/2004-QoS dated 5th May, 2005, on the issues pertaining to publishing of telephone directory and establishment of directory enquiry services. The major recommendations were -

- ◆ publication of integrated telephone directory for fixed line telephones at LDCA level [equivalent to Secondary Switching Area (SSA)];
- ◆ uniform provisions in the various access service licence agreements for publication of telephone directory and directory enquiry services;
- ◆ introduction of new licence for integrated directory enquiry service at circle and national level;
- ◆ publication of cellular directory of post-paid customers at circle level by cellular operators till the directory enquiry service provider is licensed and established;
- ◆ opt-out approach for fixed line telephones and opt-in approach for cellular mobile customers; and
- ◆ amendment to Indian Telegraph Rules etc.

The Department of Telecommunications (DoT), has conveyed its decision on these recommendations vide letter No: 7-3/2007-PHP dated 16th Oct, 2007 (Annex.I).

1.2 Regarding integrated directory enquiry service, DoT has accepted the recommendations for introduction of new licence for National Integrated Directory Enquiry Service which would have directory information of fixed telephones as well as mobile telephones (both prepaid and post paid) customers of telecom operators. DoT has also expressed

the view that for fixed telephones opt-out approach and for the mobile telephones opt-in approach by the customers should be adopted.

1.3 To formulate recommendations on the terms and conditions for Secondary Switching Area (SSA)-wise Integrated Printed Telephone Directory for fixed line telephones and National Integrated Directory Enquiry Service (NIDQS) including detailed guidelines, TRAI issued a consultation paper on 24.12.2007. The consultation paper covered all the related aspects of the issue to provide a suitable platform for discussion focusing on the approach, guidelines and terms and conditions in respect of publication of an integrated telephone directory for fixed line telephones at Secondary Switching Area (SSA) level, including authorization/licence for publication of an integrated telephone directory, and introduction of a new licence for National Integrated Directory Enquiry Service by a separate agency.

1.4 The Authority received comments from the stakeholders. The consultation paper and the comments received from the stakeholders were posted on TRAI's website. An Open House was also held on 11.02.2008 at Delhi to discuss the issues. The recommendations for publication of telephone directory for fixed line telephones, which also included the proposal for amendment in Indian Telegraph Rules 1951 pertaining to telephone directory and amendment of various access service licence agreements to pave the way for publication of integrated telephone directory for fixed line telephones and directory services, were sent to the Government on 24th April, 2008.

1.5 The Authority had further undertaken sample survey through consumer organisations registered with TRAI to form an opinion on the approach to be followed for inclusion of mobile numbers for directory enquiry service. The inputs received from the stakeholders during public consultation, the deliberations during open house discussion and the

results of the sample survey have been duly considered by the Authority while finalizing its recommendations on the terms and conditions of licence for the National Integrated Directory Enquiry Service (NIDQS). The determination covering the guidelines for National Integrated Directory Enquiry Service (NIDQS) will be formulated and the same will be issued by the Authority as and when the licence for National Integrated Directory Enquiry Service (NIDQS) is issued by the Department of Telecommunications after acceptance of these recommendations.

Chapter – II

SUMMARY OF RECOMMENDATIONS

Through this document the Authority is making its recommendations on the terms and conditions for National Integrated Directory Enquiry Service (NIDQS) for Fixed and Mobile Telephones. **A brief summary of the recommendations is given below. However, for details and acceptance of the recommendations, DoT may refer to the linked paragraphs mentioned in this summary.**

1. **There should be a license for NIDQS** (para 3.4).
2. **Market Structure/Number of licenses:** The maximum number of licenses may initially be restricted to two, for a period of 5 years (para 3.5).
3. **Scope of Licence:** The licensee shall have to provide National Integrated Directory Enquiry Service (NIDQS) both for fixed line (wireline and fixed wireless service) and cellular mobile telephone service. The customers can access the National Integrated Directory Enquiry Service through their access service providers. The directory enquiry service provisioning scheme envisages that there would be separate access code for local directory enquiry service (within the service area) and national directory enquiry/yellow pages and accordingly be charged separately. The licensor will have to designate a new access three digit code for the service. BSNL/MTNL and other access service providers may provide directory enquiry service for its own customers on 197. NIDQS licensee shall provide the service through telephone/voice in the English Language, the Hindi language and the regional language of the state/service area. The NIDQS licensee may also provide the service through other electronic means such as Short Message Service (SMS), Integrated Voice Response System (IVRS), Internet (Web-based, e-mail) etc. (Para 3.6 and 3.7).

4. **Selection Criteria:** The selection of NIDQS licensee may be made through open bidding process, with the applicants meeting the eligibility criteria (para 3.8).

5. **Eligibility Criteria**

- (a) The applicant should have experience of 3 years in Telecom network operations or IT Enabled Services (ITES).
- (b) The applicant must be a public company or a government company, incorporated as such under the Companies Act 1956.
- (c) The applicant company itself should have a minimum net worth as well as paid up capital of Rs.100 Crores on the date of application.
- (d) The terms & conditions for foreign direct investment (FDI) from all sources should be consistent with the FDI limit for telecom sector as applicable from time to time. The maximum FDI may be limited to 74% as of now (para 3.9).

6. **Entry Fee:** A minimum reserve price of Rs.1 crore as One Time Entry Fee (OTEF) may be fixed for NIDQS licence, which will get finally determined in the bidding process. The actual One Time Entry Fee (OTEF) may be determined during the licensing process through open bidding (para 3.10).

7. **Interconnection:** It shall be mandatory for all the access service providers to terminate sufficient number of circuits (E1s) as per the traffic requirement, at their own cost, at the Points of Presence (POP) in each service area of each NIDQS licensee, where sufficient number of ports (E1s) shall be provided by the NIDQS licensee without any port charges to the access service providers (para 3.11).

8. **Tariff:** The tariff may be left under forbearance, to be notified by NIDQS Providers, as it envisages competition in the service provisioning. If there arises a need to intervene to protect the interest of consumers, TRAI may also notify the rates for local, national/yellow pages directory enquiry or may notify ceiling on the rates (para 3.12).

9. **Revenue share:** The revenue share recommendations include call charges for directory enquiry to be collected by the access provider and share is to be paid to NIDQS Provider. The revenue share can be as mutually agreed between NIDQS Provider and the access service provider on non-discriminatory basis. TRAI may also determine the revenue share between NIDQS Provider and Access Service Provider from time to time (para 3.13).

10. **Data Sharing and Data Security:** Options to customers for listing in directory services: There could be two approaches for option to customers for directory services viz opt-in approach i.e only those customers who want their names included for directory services may give their option for such inclusion and opt-out approach i.e. those who want to exclude their names may opt out of directory services. It is proposed that the “opt-out” approach shall be followed for fixed line telephones (wireline and fixed wireless service) and “opt-in” approach shall be followed for cellular mobile telephones. The access service providers shall obtain the options of the customers and provide the data to NIDQS Provider. The option of new customers for directory listing in NIDQS shall be obtained at the time of enrolment in the service. There shall be facility provided by access service providers for change of options i.e. directory listing. The licensee shall have to adopt the practices in line with data protection measures specified in ISO standards or equivalent international standards. The data protection measures adopted by the licensee shall also be subjected to annual audit/ verification as per the guidelines/directions/ orders issued by the licensor or TRAI from time to time (para 3.14).

11. **Licence Fee:** The license fee for NIDQS be 6% of the Gross Revenue (on accrual basis) on account of providing NIDQS service. However, the access service providers shall continue to be governed by the terms and conditions of their respective licence, including conditions relating to payment of licence fees. (para 3.15).

12. **Duration of licence:** The license duration could be initially for a period 10 years, which could be renewed by 10 years (para 3.16).

13. **Customer Services and Quality of Service:** The quality of service parameters shall be there on ease of accessing the service which includes both call completion rate and connectivity to the agents of NIDQS. There could also be parameters for assessing customer perception of service. TRAI will prescribe the quality of service (QoS) norms in this regard from time to time (para 3.17).

14. **Performance obligations:** The NIDQS licensee shall roll out the service in eleven service areas in the first year and the remaining service areas in the second year (para 3.18).

15. **Bank Guarantee:** A nominal performance bank guarantee of around Rs 2.5 crore may be prescribed for an NIDQS operator for two years. There should be suitable financial bank guarantee which could be initially Rs.1 crore (para 3.19).

16. **Recommendations on amendments to licence conditions in various access service licenses:** Recommendations have been made to amend Indian Telegraph Rules, 1951 pertaining to telephone directory in line with the above recommendations. Recommendations have also been made to amend the various access service licenses in order to have uniform provisions for publication of telephone directory and directory enquiry services (para 3.20).

17. **Determination and issue of guidelines by TRAI:** TRAI will issue determination for National Integrated Directory Enquiry Services after the proposed license is issued by DOT.

CHAPTER – III

NATIONAL INTEGRATED DIRECTORY ENQUIRY SERVICE: TERMS AND CONDITIONS FOR INTRODUCTION OF NEW LICENCE

3.1 TRAI in its recommendations to the Government on 5th May, 2005 had recommended introduction of an Integrated Directory Enquiry Service both at the licensed service area basis and at the national level. The Department of Telecommunications (DOT) has formally conveyed that there should be National Integrated Directory Enquiry Service, to be managed by a separate agency, which would have directory information of fixed telephones as well as mobile telephones (both prepaid and post paid) customers of all telecom operators. Further, DOT communicated that for fixed telephones opt-out approach and for the mobile telephones opt-in approach by the customers should be adopted.

3.2 Though the Department of Telecommunications had opined that the National Integrated Directory Enquiry Service shall be managed by a separate agency, TRAI in its consultation paper had flagged possibility of authorizing BSNL to provide National Integrated Directory Enquiry Service, exempting them from any entry fee or licensing procedures. The above option was in the background that since BSNL is providing directory enquiry services across the country, except in Delhi and Mumbai, it would perhaps be appropriate to authorize BSNL to provide National Integrated Directory Enquiry Service (NIDQS). Also during consultation with the stakeholders on the issue of Directory Enquiry Service in the year 2004, BSNL, MTNL and COAI had supported Integrated Directory Enquiry Services at circle level and BSNL and MTNL favoured entrusting this job to them. COAI also supported Integrated Directory Enquiry Services for fixed lines operated by incumbent operator.

3.3 During consultations with stakeholders on the issue held in February, 2008, some of the consumer organisations had supported authorizing BSNL to provide NIDQS. However, private service providers

and their associations who had submitted their views on the consultation paper were not in favour of authorizing BSNL to provide NIDQS. The general view was for licensing of NIDQS. The summarized views of the stakeholders received during public consultations are given below:

- (i) *The license system to be used for NIDQS.*
- (ii) *It should be authorized to only one party.*
- (iii) *BSNL / MTNL may be authorized.*
- (iv) *Open tendering and follow normal commercial procedures to avoid controversies.*
- (v) *Present BSNL model may be continued.*
- (vi) *BSNL and MTNL should not be authorized as their present service is unsatisfactory.*
- (vii) *There should be two licenses for NIDQS, to maintain market competition. One may be the BSNL, as they have prior experience in this field.*
- (viii) *NIDQS should be permitted under separate license/authorization. Initially only access providers or subsidiaries or companies promoted by them should be eligible to get NIDQS License/Authorization.*
- (ix) *BSNL should not be permitted to provide NIDQS under existing license as existing license does not cover NIDQS.*
- (x) *Directory enquiry service may be provided by individual access service provider in respect of his subscribers instead of introducing new agencies/ licensees for providing NIDQS. Access to such directory enquiry services should be made possible from all the access providers' networks in a standardized manner.*
- (xi) *The setting up and implementation of NIDQS should be done through active participation of a consortium of service providers. This would ensure holistic, speedy and affordable implementation of the service and would also result in cost saving.*

- (xii) *National Integrated Directory Enquiry Service providers should be licensed based on open bidding process.*
- (xiii) *If considered necessary BSNL may be authorised to provide the service on payment of a matching entry fee and acceptance of other commercial terms as determined by following the bidding process.*
- (xiv) *License for integrated directory enquiry service for fixed as well as mobile should be issued on circle basis and option should be given to the incumbent operator and new licensees.*
- (xv) *License system is to be used for NIDQS. Incumbent operator BSNL / MTNL should not be authorized to provide NIDQS.*
- (xvi) *There should be a licence system for NIDQS and since BSNL is already providing this service, it should continue with some modifications.*
- (xvii) *By issuing a license to an incumbent provider there is little operational or financial incentive for the incumbent to focus on Directory Enquiry (DQ) while they are focused on other potentially more profitable services. Hence all Networks Operators as well as any company in which they have any stake or have a common Director in the Board of Directors should be barred from applying for this license.*

3.4 Licence for National Integrated Directory Enquiry Service (NIDQS):

3.4.1 During consultation there were divergent views on authorization of BSNL or other access service providers for providing NIDQS. However, the majority view was for licensing of NIDQS. ***Taking all the facts into consideration, the Authority recommends that there should be a license for NIDQS. As regards, the issue of authorizing BSNL for NIDQS, the Authority feels that since BSNL is providing directory enquiry service across the country for its customers, the BSNL may take licence, if it opts to provide National Integrated Directory Enquiry Service. While the BSNL may be exempted from the participation in auction, it must affirm that it shall abide by all the***

terms and conditions as shall be applicable to the licensee, determined by DOT. The DoT may take such option from BSNL before the bidding process for award of licence for NIDQS is initiated. In the option BSNL shall have to clearly state that it shall pay the One Time Entry Fee (OTEF) as per the amount quoted by the selected bidder and also abide by all other terms and conditions. If BSNL opts for licence the auction may be restricted to one licensee only. In case BSNL does not exercise the option for getting licence and making operational the NIDQS, DOT may proceed with the auction for two licensees.

3.4.2 Further, the Authority recommends that all the existing arrangements for providing directory enquiry service by the access service providers must continue till the National Integrated Directory Enquiry Service (NIDQS) is fully established and operationalised.

3.5 Market Structure/Number of licenses:

3.5.1 As the Authority favours the need for licensing NIDQS, the next aspect to be considered is the market structure for NIDQS. In the consultation paper the Authority had stated that though the experience in UK shows that most DQ users use only one provider and that most of the users experienced that the level of choice is confusing, but still competition exists there in the directory services market. Considering the Indian scenario, there is a need to create conditions for competition in provision of Directory Enquiry Service.

3.5.2 During consultation process there were divergent views as to the number of NIDQS licensee. While some of the stakeholders were in favour of having only BSNL for providing NIDQS, the suggestions as to the number of licenses range from 2 to 4. The critical factor is that each access service provider shall have to connect its network with the point of presence (PoP) of “National Integrated Directory Enquiry Service Providers (NIDQSP)” so that consumers of such access service provider are able to contact with the particular NIDQSP of his choice to avail the service.

Since such connectivity involves cost and telecom circuit resources, a balance needs to be struck between effective utilization of telecom resources, consumer choice and creation of conditions for competition for National Directory Enquiry Service. **Therefore, the Authority is of the view that considering the need for competition which could lead to lower price and better quality to consumers and also the limitations on interconnection of NIDQS providers with access service providers, the maximum number of licenses, may be restricted to two, initially for a period of 5 years.**

3.5.3 Regarding the suggestion that NIDQS license may be granted on service area basis or on regional basis, **the Authority is of the view that licensing of NIDQS only on service area basis may not be in the interest of consumers.** Also from the administration and financial viability point of view licensing of NIDQS at the national level would be better. **Accordingly, the Authority recommends the licensing of NIDQS at national level. The Authority recommends the following terms and conditions for new license for NIDQS:**

3.6 **Scope of Licence:**

3.6.1 In the consultation paper the Authority had stated that the licensee shall have to provide national integrated directory enquiry service both for fixed line telephones (wireline and fixed wireless service) and cellular mobile telephone service. The customers can access the National Integrated Directory Enquiry Service through their access service providers. The directory enquiry service provisioning scheme envisages that there would be separate access code for local directory enquiry service (within the service area) and national directory enquiry/yellow pages. Accordingly there shall be separate charge for local directory enquiry and national/yellow pages directory enquiry. The licensor will have to designate a new access code of three digits for the NIDQS. For example, in U.K. a three digit number 118 is used for directory enquiry service. In our scenario we can have any three digit number like 1AB as service access code of NIDQS and thereafter one digit for identification of

local or national/yellow pages and one digit for the National Integrated Directory Enquiry Service Provider (NIDQSP). **For example, in case there are three NIDQSPs, the dialing procedure for accessing the enquiry service is illustrated below:**

- (a) Local enquiry: The enquiry service will be accessed by dialing 5 digits, which could be 1AB1X, 1AB1Y and 1AB1Z, where 1 is for local and X, Y, Z for operator code for NIDQSPs).**
- (b) National/Yellow Pages enquiry: The enquiry service will be accessed by dialing 5 digits, which could be 1AB0X, 1AB0Y and 1AB0Z, where 0 is for national/yellow pages and X, Y, Z for operator code for NIDQSPs).**

3.6.2 During public consultation most of the stakeholders had supported the above proposal of the Authority. However, AUSPI, Reliance and TATA had opined that as per national numbering plan, code 197 is for Directory enquiry. NIDQS providers may be allowed 197 XXX numbering for directory enquiry. Separate levels for local directory /National/yellow pages directory enquiry are not needed. Separate level may not help to efficiently utilize resources. BSNL/MTNL should not be allowed to provide NIDQS on existing code 197, like in UK, as that would give them huge competitive advantage. One of the stakeholders has also proposed that dialing arrangements may be common for local and national enquiry for better use of capital investment, operational process and supporting users' data.

3.6.3 Considering the fact that most of the stakeholders had supported the proposal of TRAI as explained in para 3.6.1 above, the Authority recommends dialing procedure for National Integrated Directory Enquiry Service (NIDQS) as illustrated in para 3.6.1 above. In view of the above, DOT will have to allot three digit access code (1AB) for NIDQS and also identification digit (1) for local enquiry, digit (0) for national/yellow pages enquiry and another

identification digit for licensees. In addition, DOT may reserve one more three digit access code for directory assistance such as 1AC so that if at a later date it is considered necessary to provide directory assistance it could be made part of the scope of the NIDQS licence. Similar service of directory assistance 199 existed earlier. The total number of digits to be dialed for directory enquiry and directory assistance shall be five.

3.6.4 The Authority also recommends that since the access service providers can provide local directory enquiry service for their own customers, in accordance with the terms and conditions of their licence, BSNL/MTNL may continue their directory enquiry service on 197. Also other access service providers may provide local directory enquiry service for its own customers on 197.

3.7 Provision of integrated telephone directory enquiry services through other electronic means such as SMS, Integrated Voice Response System (IVRS), Internet (web-based, e-mail):

3.7.1 It was proposed in the Consultation Paper that given the increased usage of cellular mobile phones and SMS, an integrated directory may be made accessible through SMS also. Similar facility is already provided by MTNL. The Authority is of the view that given the Indian situation of literacy level and usage pattern, directory enquiry service through voice must be there. Further, NIDQS licensee shall provide the service through voice in the English Language, the Hindi language and the regional language of the state/service area. Apart from provision of service through voice it should be open to the NIDQS licensee to provide the service through SMS, web or e-mail or any other electronic means. National Integrated Directory Enquiry Service Provider can make a good commercial venture through

advertisement on his web site and can provide the information on the web through Internet for directory enquiry services.

3.7.2 In view of the above, the Authority recommends that the scope of licence would cover the provisioning of National Integrated Directory Enquiry Service through telephone calls (voice.) In addition, the licensee may also provide the service through other electronic means such as Short Message Service (SMS), Integrated Voice Response System (IVRS), Internet (Web-based, e-mail) etc.

3.8 Selection Criteria:

3.8.1 During consultation process the general opinion of the stakeholders was to license NIDQS provider through open bidding process. The other suggestions received in this regard are:-

- (i) *Initially only access providers or subsidiaries or companies promoted by access providers may be permitted to provide NIDQS. In case, number of applicants is more than four, then auction route may be adopted to select operators.*
- (ii) *Initially there can be four NIDQS operators and the selection should be on the basis of auctioning. In case other operators are allowed to enter the NIDQS market then they should be asked to pay the same entry fee paid by access providers.*
- (iii) *Transparent comparative evaluation process.*
- (iv) *Through tendering and the tender should identify minimum requirements for obtaining a license.*
- (v) *Selection based on experience, technical know-how, ability to scale to any volume of inbound calls, access to automation technologies, years of business, size of company, ability to service in multiple Indian languages.*

3.8.2 Considering the general opinion of the stakeholders the Authority recommends that the selection of NIDQS provider may be made through open bidding process based on the eligibility criteria.

3.9 Eligibility Criteria:

3.9.1 The following are the comments received from the stakeholders on the eligibility criteria:

- i) *Not applicable, if BSNL/MTNL are authorised.*
- ii) *Experience in the field of directory enquiry service is desirable.*
- iii) *Based on international practices, criteria deemed appropriate by the Authority may be considered. Also the experience of providing the service may be taken into account.*
- iv) *The companies having experience of providing call center facilities may be given preference for issuing licenses for this service.*
- v) *Eligibility criteria, including net-worth, maximum limit of total foreign equity to be maintained at any time, for circle level Integrated Directory Enquiry Service Provider in case of a new license should be as per the Infrastructure provider license.*
- vi) *Only knowledge of key person of the company with, required infrastructure, with minimum 10 years experience in the field of handling call center should be considered.*
- vii) *What has been given in the eligibility criteria under para 4.4 is O.K. But we feel that more emphasis should be given on technical capability.*
- viii) *Eligibility should be limited to those companies that can demonstrate relevant levels of experience in both the Directory Services business and in managing massive telephone information databases. Potential eligibility criteria include demonstrable data protection processes including meeting recognized international standards such as ISO 0027001 or BS 7799, financial stability etc. 100% FDI is recommended.*
- ix) *The Indian partner should have experience in providing similar services for at least three years to overseas market.*
- x) *The applicant company should be an Indian company registered under the Indian Companies Act.*

- xi) *The applicant should have a track record of dealing in mass data in directive media industry for at least 5 years. They should not have been debarred or black listed in their earlier dealings with the Department of Tele-communication with regard to any service provision*
- xii) *Financial status should be good and a reputed one.*
- xiii) *A net-worth of Rupees one crore may be prescribed for NIDQS operator, in line with the NLDO license.*
- xiv) *The minimum net-worth may be determined based on the assessment of investments involved in providing the service in the entire licensed area.*
- xv) *The net-worth of the company should be based on the Capex and Opex involved for providing the said service nationally.*
- xvi) *The applicant should have a net-worth of minimum of Rupees four crores.*
- xvii) *Upto 49% FDI may be allowed.*
- xviii) *It is not necessary to have foreign equity.*
- xix) *There need not be any upper limit for FDI in companies licensed to provide the service.*
- xx) *Since it is matter of data secrecy and national security, the foreign equity should not be more than 49%.*
- xxi) *A company having more than 5% of foreign equity should not be given license at all.*
- xxii) *100% FDI is recommended.*
- xxiii) *The foreign investment should be limited to 74%.*

3.9.2 The above suggestions have been examined in the context of key considerations namely (a) to have quality National Integrated Directory Enquiry Service (NIDQS); (b) only serious and competent entities participate in the bidding process to obtain the licence; (c) efficiency and financial capability are paramount; and (e) experience in telecom network operations/ IT Enable Services (ITES) . **The Authority recommends:**

- (a) The applicant should have experience of 3 years in Telecom network operations or IT Enabled Services (ITES).**
- (b) The applicant must be a public company or a government company, incorporated as such under the Companies Act 1956.**
- (c) The applicant and promoters of applicant company should have a combined networth of Rs.100 Crores on the date of application and shall submit the certificate to that effect from Company Secretary / Company's statutory Auditor along with the application for license. The networth of only those promoters shall be counted who have directly in their name at least 10% equity stake in the total equity of the company. Networth shall mean as the sum total, in Indian Rupees, of paid up equity capital and free reserves. While counting networth the foreign currency shall be converted into Indian Rupees at the prevalent rate indicated by the Reserve Bank of India as on the date of application received. The minimum networth and paid-up capital shall be maintained during currency of the licence. The applicant company who meet the above networth criteria shall be eligible to apply for licence.**
- (d) The terms & conditions for foreign direct investment (FDI) from all sources should be consistent with the FDI limit for telecom sector as applicable from time to time. The maximum FDI limit of 74% (as existing in telecom sector at present), including both direct and indirect foreign investment, shall be applicable.**

3.10 Entry Fee:

3.10.1 The following comments have been received from the stakeholders during consultation process:

- (i) *One crore rupees.*
- (ii) *The highest bid received in the auction process will become the actual entry fee.*
- (iii) *In case there are more than 4 interested parties the auction may be adopted, otherwise bare minimum entry fee may be prescribed for NIDQS.*
- (iv) *Entry fee/ base price arrived at through the appropriate selection/ auction process may be applicable.*
- (v) *There should not be any entry fees for BSNL since it is already providing the service on national level.*
- (vi) *In case incumbent opts for providing integrated directory enquiry service in a circle, incumbent operator should be exempted from any entry fee or licensing procedure and should be allowed to provide the same under the existing license.*
- (vii) *The entry fee should not be more than one lakhs per circle since it is just and domestic inbound call center but DOT should charge a share of revenue generated through the calls.*
- (viii) *The entry fee should be decided at the time of selection and the entry fee should be on higher side, looking to the area of coverage.*
- (ix) *INFONXX recommends a one time entry fee of 100,000 INR.*
- (x) *The entry fee should be such that it acts as a deterrent and avoids non-serious participants and ensures a high quality experience for the end consumer of the service.*

3.10.2 One view received during consultation was that the Entry Fee may be decided through open bidding process. The other view was that a one time entry fee may be fixed. The amount suggested varied from Rs.1 lakh to Rs. 1 crore. The Authority is of the view that keeping in line with its recommendations on selection of NIDQS provider through bidding process the actual entry fee would be determined in the process of selection but the minimum reserve price need to be sufficient so as to discourage non-serious players.

3.10.3 It has been argued by some that in the open bidding the bids may reach commercially unviable levels and later on the winning parties may not operationalise the service within the rollout period. The Authority has considered the various alternative approaches for grant of licenses for NIDQS and has come to the conclusion that the Open Tender System on the basis of One-Time Entry Fees (OTEF) quoted by the bidders is best suited for grant of licenses for NIDQS. This is because the tendering method is the most transparent way of determining the market value for such a limited licence. To avoid the pitfalls of open bidding to licence more than one service provider, it is appropriate that there is a concept of minimum reserve price and also floor price i.e. say if the minimum reserve price is Rs.1 crore for One Time Entry Fees (OTEF) and highest bid quoted is, say Rs.10 crores, then the floor price for award of licence should be minimum 50% of the highest financial bid submitted. Therefore, the revised minimum reserve price/floor price in such a scenario should become Rs. 5 crore. In case the second highest bidder or next bidder's quote is above 50% of the highest bid quoted by the first select bidder then the second highest bidder shall pay OTEF as the actual bid quoted by him. In case the bid amount of second highest bidder or next bidder is lower than 50% of the highest bid quoted by the first select bidder, then he will be required to pay the revised minimum reserve price/ floor price i.e. 50% of the highest bid quoted by the first select bidder.

3.10.4 ***Therefore, the Authority recommends a minimum reserve price of Rs.1 crore for One Time Entry Fee (OTEF) for NIDQS licence, which may get finally determined in the bidding process. The actual One Time Entry Fee (OTEF) may be determined during the licensing process through open bidding. In case the BSNL has exercised its option for licence for NIDQS, then bids shall be called for selection of only one licensee for NIDQS. The second licensee shall be BSNL. In case BSNL do not exercise the option for licence***

for NIDQS, then bids shall be called for selection of two licensees for NIDQS and all the eligible entities including BSNL can participate in the bidding process. The highest bidder may first be awarded the licence at the highest bid quoted by him as OTEF, in case his quote is above the minimum reserve price of Rs.1 crore. A floor price may be determined for awarding the licence to the second bidder. The floor price will be 50% of the highest bid, subject to this amount not falling below Rs.1 crore. In case the bid quoted by the second highest bidder is more than the floor price, the licence will be awarded at the actual bid price quoted by him. In case the bid price quoted by the second highest bidder is below the floor price, the licence will be awarded at the floor price value so determined. The offer at the floor price shall be given to the second and other bidders in order of their bid amount and on the basis of seniority decided in their bid price, any one who agrees to pay the floor price shall be awarded the second licence.

3.11 Interconnection:

3.11.1 The Authority in its consultation paper had proposed that it should be mandatory for all the access service providers to terminate sufficient number of circuits as per the traffic requirement at the Points of Presence of each NIDQSP at their own cost in the respective licensed service area. Sufficient number of ports for termination at Point of Presence of NIDQSP in a service area shall be provided by NIDQSP without any port charges.

3.11.2 During public consultation the consumer organisations had agreed with the above proposal of the Authority. However, the service providers and their associations had opposed the interconnection proposal. *The responses in this regard are summarized below:*

- (i) *Since NIDQS provider will be setting up the service, the cost of interconnection should be borne by the NIDQS Provider, which could be recovered through revenues.*

- (ii) *The Directory enquiry service is not a toll free utility service and therefore access network costs and interconnection costs cannot be subsidized by access service providers.*
- (iii) *The Authority may mandate that the interconnection should be provided to all NIDQS providers on a non-discriminatory basis.*
- (iv) *No, in our opinion it should be the responsibility of the licensee for providing Directory Enquiry Service to arrange interconnection with other service providers at its own cost.*
- (v) *The number of circuits between access providers and NIDQS for inter-connection should be based on the outgoing traffic from access providers to the POP of NIDQS in the LSA.*
- (vi) *No. In case of new license, licensee should seek the interconnection from the telecom service provider as per the present practice. However, if any telecom service provider gets the new license for any service area, the same will seek the interconnection from the integrated directory service provider. In case incumbent operator provides the circle level integrated directory enquiry service, existing PoIs with other telecom service providers may be used for this purpose also.*
- (vii) *An alternative arrangement is to allow voice DQ traffic to be routed to a “host” network for completion to the NIDQS. This also includes local DQ traffic which is serviced by the NIDQS because this proposal includes a national database of local, mobile, government and business telephone numbers. In this arrangement, all originating and terminating billing is facilitated by the “host” network with an SS7, C7 or SIP interconnection to the NIDQS. This arrangement is also roughly equivalent to Feature Group D trunking used in the US for call terminations between telecommunications common carriers. This solution is cost effective both for the access provider and the NIDQS.*

3.11.3 The Authority has considered the above views of the stakeholders and is of the view that NIDQS provider cannot be compared with access service provider in terms of network capacity, size etc. Access service providers are basically responsible for provisioning of all access service including public utility and directory enquiry. Primarily in the case of directory enquiry the traffic is one way i.e. outgoing from access service provider to NIDQS. One of the consumer issue is to access the service easily i.e. to meet the call completion rate parameter in respect of Quality of Service. The access service provider has all the monitoring facilities in their exchanges to monitor erlang traffic as also the call completion rate. Based on the traffic requirements the network is engineered to provide sufficient number of circuits to POP of NIDQS for directory enquiry services. In addition, the customers cannot directly access the directory enquiry service and charge for the services other than through the access provider. Also the responsibility of providing the directory enquiry service by the access service provider as per the licence agreement is also being shifted to the directory enquiry service provider. Therefore, the interconnection arrangements between access service providers and NIDQS provider should be different than the present practice of the interconnection seeker paying for the interconnection cost.

3.11.4 In order to roll out the national integrated directory enquiry service faster the responsibility for interconnection lies both with the access service provider and the NIDQS provider. To have Quality of Service there should be an effective interconnection arrangement with sufficient redundancy between access service provider and NIDQS provider. Also it shall be mandatory for all the access service providers to terminate sufficient number of outgoing circuits as per the traffic requirement at the Point of Presence of each NIDQS provider at their own cost in the respective licensed service area. It will be the responsibility of the NIDQS provider to provide sufficient numbers of ports for such interconnection without any charges i.e. at the cost of NIDQS provider.

3.11.5 *In view of the above, the Authority recommends that it shall be mandatory for all the access service providers to terminate sufficient number of circuits (E1s) as per the traffic requirement, at their own cost, at the Points of Presence in each service area of each NIDQSP. Ports for E1 termination at Point of Presence of NIDQSP in a service area shall be provided by NIDQSP without any port charges to the access service providers. The national networking from Point of Presence in each service area shall be the responsibility of the NIDQSP. The access service provider shall monitor its outgoing traffic one-way and shall ensure that sufficient numbers of outgoing circuits are provided from each access exchange/ MSC, through tandem/TAXs/GMSCs in its network, to the Point of Presence of NIDQSP. Similarly, NIDQS Provider shall also monitor its traffic in each Point of Presence (POP) and arrange sufficient circuits to carry the traffic served at the POP by the access provider to the directory enquiry system/positions. For interconnection no charges shall be payable by either of the party. TRAI may determine the interconnection arrangements from time to time and the directions/orders/regulations on interconnection shall be applicable and binding on access service providers and NIDQSPs. The determination of TRAI regarding interconnection shall be final and will over-ride any bilateral or mutually agreed terms.*

3.12 **Tariff:**

3.12.1 In the consultation paper the Authority had proposed that the NIDQSP would notify the tariff for the service as per the TRAI's Orders/ Regulations/ Directions issued from time to time. The tariff determination shall include the charges for local enquiry and also for national/yellow pages enquiry. **The local enquiry implies that the consumer of a particular licensed service area is seeking the information on telephone number of same licensed service area. The national enquiry means the enquiry made for the telephone number of other licensed service area/circle. The yellow pages information**

includes business information provided in a classified manner having value addition. Similarly, the determination of charges can be made for SMS based directory enquiry. Presently the local directory enquiry service by incumbent operator is provided within the SSA. However, after establishing the National Integrated Directory Enquiry Service, the charges for local enquiry (within licensed service area) can be determined considering the same as local call. For national and yellow pages enquiry, a premium rate charge can be considered.

3.12.2 The comments received during public consultation are summarized below:

- (i) *TRAI may fix the rates at which the NIDQ Services are provided to ensure uniformity in the charges.*
- (ii) *For local enquiries it may be considered as a local call, for National enquiry STD charges may be fixed and premium rate may be charged for yellow pages enquiry.*
- (iii) *It is important that the service providers do not make business promotions during such calls made by the consumers.*
- (iv) *Free Service.*
- (v) *NIDQS enquiry within the local circle can be determine considering it as local call per minute / per three minutes basis. For national and yellow pages enquiry a premium rate can be considered.*
- (vi) *We can make minimum price of calls without any tariff in such a way if the call price will be low then public may use maximum their calls.*
- (vii) *Tariffs should be under forbearance and should be left to the market forces.*
- (viii) *For a local enquiry there should be a premium rate which could be 60% of the premium for national and Yellow Pages enquiry. The Authority should fix the tariff based on incentive for new players to enter the market, recovery of cost, generation of*

adequate surplus for incorporating new technology and the tariff should be reviewed periodically.

- (ix) We agree with the proposals given in para 4.8. The tariff may be determined mutually. There could be one tariff for local/regional enquiry on per minute basis. Calls to other service area/regional basis on applicable NLD tariff.*
- (x) If considered absolutely necessary a ceiling tariff could be prescribed for different types of queries.*
- (xi) It is understood that the Call Centre of the NIDQS Service Provider will be at one place or maximum four places on zonal basis in India and as such, the Enquiry from a subscriber of an SSA for a local number within the same SSA or outside the SSA is irrelevant thereby charges for local enquiry should be same as for national enquiry. Similarly, the tariff should be the same for information on yellow pages. The call should be charged on per minute basis.*
- (xii) The amount of revenue from the Service should be shared between the Access Service Providers and the NIDQS provider on cost basis as per the utilization of their resources for the provisioning of NIDQS. The settlement should be made on the basis of cumulative traffic over a month.*
- (xiii) The cost structure of a local call and directory enquiry call and ordinary other calls is not same and therefore same charges for both calls is not workable and the pulse rate should be one minute.*
- (xiv) TRAI must regulate the above tariff and approve plans for revenue share between access service provider and NIDQS provider for sharing of premium rate service revenue.*
- (xv) For low cost calls several options like Ad-funded services, cross subsidized services etc. could be considered along with migration to voice service later as the market develops.*
- (xvi) There should be additional tariff for value added services such as SMS delivery option, Call completion service (almost 10% of*

customers request it in UK), Driving directions, Movie Listings and Weather.

3.12.3 The private access service providers and their associations are in favour of tariff under forbearance, leaving determination of tariff to market forces. Another predominant view, mainly from consumer organizations, is that TRAI may fix the tariff. The stakeholders generally favoured tariff on a per minute basis. ***The Authority is of the view that the tariff may be left under forbearance as it envisages competition in the service provisioning. The NIDQSP shall also fulfill all the requirements (including publication of tariff notification and provision of information) as may be directed by TRAI through its Orders/ Regulations/ Directions issued from time to time under the TRAI Act, 1997. If there arises a need to intervene to protect the interest of consumers, TRAI may also notify the rates for local, national/yellow pages directory enquiry or may notify ceiling on the rates.***

3.13 **Revenue share:**

3.13.1 The Authority had proposed in the consultation paper that any revenue sharing among access service provider and NIDQSP shall take place out of the proceeds of the amount payable by the subscriber to the access service provider for accessing the service which involves the usage of the network of both access service provider and NIDQSP. The access service providers shall charge and collect from its customers for the directory enquiry service as per the rates notified / determined by the NIDQSP or TRAI, as the case may be. The revenue share can be as mutually agreed between NIDQSP and the access service provider on non-discriminatory basis. TRAI may also determine the revenue share between National Integrated Directory Enquiry Service Provider and access service provider from time to time.

3.13.2 During public consultation the consumer organisations and some of the service providers had agreed with the above proposal. The service providers have generally favoured that revenue share wherever applicable should be decided mutually by the concerned service providers and the Authority may ensure that the same is done on a non discriminatory basis. *The other views received in this regard are given below:*

- (i) *TRAI may determine the revenue sharing.*
- (ii) *Since it is the responsibility of the access service provider which is being served by the NIDQSP all the revenues collected by access providers should be passed on to NIDQSP.*
- (iii) *The revenue share shall be on cost basis as per the utilization of there resources for the provisioning of NIDQS. The settlement should be made on the basis of cumulative traffic over a month.*
- (iv) *The revenue from calls shall be shared on the basis of routing of calls. In case of calls coming from other network than BSNL network, - NIDQS 45%, BSNL 10 %, Other access provider 35 %, DOT 05 % as license fees. Reason is BSNL just carrying the calls from other network which it received at local exchange to NIDQS where as it is responsibility of other access provider to pay out and collect the same from the subscriber of his services. In case of calls coming from BSNL network - NIDQS 50 %, BSNL 45 %, DOT 05 %. In case of calls coming from BSNL network for yellow pages inquiry - NIDQS 70 %, BSNL 20 %, DOT 10 %. In case of calls coming from other network then BSNL network for yellow pages inquiry - NIDQS 60%, BSNL 10%, Other access provider 20%, DOT 10 %.*
- (v) *The company would prefer the methodology used in Europe and this is in concert with the proposed interconnect arrangement (para 6.17). That is, NIDQS would engage with the carriers to create a “host” carrier environment. This “host” carrier would arrange the interconnection with all the carriers serving the Indian marketplace. The NIDQS would create a*

commercial arrangement with the host carrier to transit the call and bill the end consumer. In exchange for this service, the “host” would charge the NIDQS a retention fee for the performance of these services. The NIDQS also creates Service Level Agreements with the carrier for the performance of the transit and billing services.

3.13.3 The Authority considered the above views of stakeholders and recommends the following:

- a. ***The Authority is of the considered view that any revenue sharing between access service provider and NIDQSP shall take place out of the proceeds of the amount payable by the subscriber to the access service provider for accessing the service which involves the usage of the network of both access service provider and NIDQSP.***
- b. ***The access service providers shall charge and collect from its customers for the directory enquiry service as per the rates notified / determined by the NIDQSP or TRAI, as the case may be.***
- c. ***The revenue share can be as mutually agreed between NIDQSP and the access service provider on non-discriminatory basis.***
- d. ***TRAI may also determine the revenue share between National Integrated Directory Enquiry Service Provider and access service provider from time to time. It will be binding on all the service providers.***

3.14 Data Sharing and Data Security

3.14.1 Options to customers for listing in directory services: TRAI in its recommendations to DoT on 5th May, 2005 had indicated opt-out option for fixed line (wireline and fixed wireless service) customers and opt-in option for cellular mobile customers. Opt-in option for cellular mobile service was recommended on account of the fact that, considering

the privacy issues, only those who really require their name published in the printed directory or directory enquiry service will opt for inclusion of their name in the directory services. However, on account of the following reasons the initial thought process had undergone a change and a need was felt to revisit the option considerations made earlier for cellular mobile telephone customers for directory services:

- (a) regulation is already in place to tackle unsolicited commercial calls;
- (b) there will not be printed directory for cellular mobile service;
- (c) the directory services are now being thought of as a chargeable service;
- (d) cellular mobile service is now being used as a substitutable service to fixed line telephones; and
- (e) the large number of self employed people such as carpenters, electricians, plumbers etc. and small time vendors are able to afford the mobile phone service and also rural population is increasingly adopting to mobile phones and that they would like to have their listings for directory services.

3.14.2 Normally in the initial stage of establishment of directory services the preferred approach could be opt-out where subscriber gives his explicit consent that he does not want his name and telephone or mobile phone number in directory services. Under the Indian Telegraph Rules opt-out option is provided to subscribers. In the case of opt-in approach the subscribers may not make efforts to include their name for directory services. Also the access service providers may have to take more efforts to compile database of opt-in customers and they may not have much motivation or incentive to do so. As such, the Authority felt that database following opt-in approach may have only limited utility. An opt-out option could ensure that the quantity and quality of the database is utilized to the maximum possible and this is desirable since directory services are chargeable services. Also those subscribers who have serious privacy issues could opt-out of directory service. Therefore, the Authority

proposed in the Consultation Paper that opt-out approach, for subscribers/customers, is desirable.

3.14.3 During consultation the consumer organisations generally accepted the proposal for data sharing including seeking option from consumers. However, the private service providers and their associations had supported opt-in option for the mobile customers mainly on account of security and privacy issues. According to them the opt-in approach is justified because the security and privacy issues of an individual is much larger than the issue of nuisance of unsolicited commercial calls and the existing regulation on UCC may not be adequate to fully address such critical issues, and opt-in approach has been accepted by DOT for mobile services. BSNL and MTNL have favoured opt-out approach for seeking options from the subscribers. One of the international DQ providers who participated in the consultation process and another Indian company who provide call centre facility also supported opt-out option for cellular mobile subscribers.

3.14.4 The Authority has considered the above views of stakeholders vis-à-vis the advantages and disadvantages of the opt-in option. The advantage of opt-in option is that only those who really want their names included for directory services will give such option. Such customers may not be averse to unsolicited commercial calls. The disadvantage of such an option is that the subscribers may not make efforts to include their name for directory services. Also the access service providers may have to make more efforts to compile database of opt-in customers and they may not have much motivation or incentive to do so. In such a case the data base would be small and such a small data base may not be in the interest of consumers, especially when the NIDQS would be a chargeable service. Another issue is that cellular mobile is now a substitutable service for fixed line telephones and a large number of consumers have substituted their landline telephones with cellular mobile. In such a scenario opt-in approach may not be desirable.

3.14.5 Since the customer is directly concerned with the privacy issues the Authority felt the need to assess the views of cellular mobile customers as to their preference for the approach to be followed for including cellular mobile numbers for NIDQS. Accordingly, it was decided to undertake a sample survey of cellular mobile customers in this regard through the Consumer Advocacy Groups registered with TRAI. The questionnaire which was administered during the sample survey is at **Annex-II.**

The results of this survey are tabulated hereunder:

Table – Sample Survey for Opt-out Vs. Opt-in

	Opt-out	Opt-in	Total	Would you like		Total
				Mobile DQ Listing		
				Yes	No	
Sample	707	936	1643	875	765	1640
%age	43%	57%		53%	47%	

3.14.6 The results of the sample survey show that majority of the cellular mobile subscribers is in favour of opt-in approach for including cellular mobile telephone numbers in NIDQS. ***The Authority, therefore, recommends that opt-out approach may be followed for fixed line telephones (wireline and fixed wireless service) and opt-in approach may be followed for cellular mobile telephones.***

3.14.7 ***As regards implementation of the facility of opt-out for fixed line telephone (wireline and fixed wireless service) customers and opt-in for cellular mobile telephone customers, the following steps are recommended:***

For existing customers:

- (a) ***The NIDQS Provider shall notify the access service providers, at least six months before the intended date for commissioning of NIDQS for the concerned licensed service area/circle, the requirement and format for***

giving data about all the customers who have to be listed for directory enquiry service.

- (b) The access service providers shall be mandated to provide the updated data of the existing customers first time to the NIDQS Provider for NIDQS listing within four months of such notification for commissioning of NIDQS in the concerned licensed service area, as per the guidelines of licensor or TRAI.**
- (c) For fixed line telephone customers: The access service providers shall, for the first time after the request is received from NIDQSP, inform the fixed line telephone customers through telephone bills and public notice, including website notification or any other mode, the facility of excluding their names from the directory enquiry services as 'opt-out' option. All those customers who specifically give their option of "opt out" i.e. exclusion from directory enquiry service within the time limit specified in the public notice, will not be listed in the directory enquiry service while the names of all other customers will be listed in the NIDQS. This option will be given to the customers with minimum of one month notice.**
- (d) For cellular mobile telephone customers: The access service providers shall, for the first time after the request is received from NIDQSP, inform the cellular mobile telephone customers through SMS, telephone bills and public notice, including website notification or any other mode, the facility of 'opt-in' for including their names in the directory enquiry services. All those customers who will specifically give their consent for inclusion of their name in the directory enquiry service, will be listed for directory enquiry service while the names of all other mobile customers will not be included**

in the NIDQS. In addition, second SMS after the 45 days of first notification of directory enquiry listing shall be issued by telecom service providers to all such cellular mobile telephone customers who have not initially opted-in for directory listing, giving them another opportunity to opt-in for directory service. Such SMSs shall also be issued by access service providers at least once in six months to all those cellular mobile telephone customers who have not opted in for listing in NIDQS.

For new customers:

- (e) For new fixed line (wireline and fixed wireless service) and cellular mobile telephone customers: The options for new fixed line customers and cellular mobile telephone customers for directory services shall be obtained at the time of enrolment for the service. The service providers shall specifically add an item in the Customer Acquisition Form (CAF) asking for listing of the customer for directory services. Action shall be taken as per option given in this regard in the CAF. However, if this item/column is not filled by any customer, then in the case of fixed line telephone customer (wireline and fixed wireless service) the name, telephone number and address shall be included in the NIDQS while for cellular mobile telephone customer the name, telephone number and address will not be included in the NIDQS.*

Facility for Change of option and updation of NIDQS listing:

- (f) The customers shall have the facility to change/register their option for directory services and this option may be exercised by them at any point of time. The concerned service provider may incorporate the change in option in his database and also inform such change at least once in a month to the concerned licensed NIDQSPs. Similarly, the service providers may incorporate*

corrections in name and address sought by the subscribers and convey such updation to the concerned NIDQSPs. All the access providers, through their authorized representatives/ nodal officers designated for the purpose, have to provide updated data electronically at periodic intervals as per the determination of TRAI. Normally the format for directory enquiry data shall contain name of the subscriber, telephone number, address (office or residence, as the case may be) containing house/flat number, building name/plot number, street/road, village/town/city, District, State, Pin Code. Since the access service provider is proposed to get revenue share, the data has to be shared by the access service provider free of charge. Further, in this regard the provisions in the license agreements will also apply. The change in the NIDQS listing shall be effected immediately by the NIDQS Provider, but not later than fifteen days from the receipt of communication of such change from access service provider.

- (g) The access provider shall need to continuously update the customer information in respect of addition, deletion, change of name, change of address, change of telephone numbers etc. and provide the updated information to each NIDQSP at periodic interval, but at least on a monthly basis. The change in the NIDQS listing shall be effected immediately by the NIDQS Provider, but not later than fifteen days from the receipt of communication of such change from access service provider.**
- (h) In respect of bulk changes in telephone numbers due to any technical reasons, such changes, with the date of implementation of such changes are required to be notified in advance to the concerned consumers and**

NIDQSP. Such bulk changes need to be reflected in National Integrated Directory Enquiry Service on immediate basis.

- (i) Further the Opt-out or Opt-in option will not be available for the telephone numbers of public utility services. All such numbers shall be included by telecom service providers for directory listing.**
- (j) The access service providers shall be mandated to provide the data to the NIDQSP, as per the determination/ guidelines of licensor or TRAI.**

3.14.8 Regarding data sharing and data security, the following comments have been received from the stakeholders during public consultation.

- (i) There should be security of data Sharing and data security according to customer demand e.g area wise, name and address with full details of old Number.*
- (ii) To safeguard privacy, the NIDQS license should have clauses to debar NIDQS operator from publishing cellular directories, selling directory data to third parties including telemarketers and prohibition from bulk disclosure of numbers except if required by security agencies or under the law.*
- (iii) There should be a hefty penalty levied on the authorized agency for violation of the data security measures.*
- (iv) There must be a independent bi-annual audit conducted to verify adequacy of their data security measures.*
- (v) It should be the responsibility of the NIDQS providers to ensure that the data pertaining to one access provider is not shared with other competitors for providing access service in the same service area.*
- (vi) Adequate safety mechanism should be in place to maintain the secrecy and confidentiality of the data.*

- (vii) *The directory enquiry service database should also be accessible from the website of the directory enquiry service provider.*
- (viii) *The license agreement for NIDQS should have clause like prohibition of bulk disclosure of directory information except when required by security agencies or under the law.*
- (ix) *The proposal for data sharing and data security I would like to say it should be a integrated network among all operators and hence the data will travel via net and their should be not be worries for sharing data as DQ data is not a religious data.*
- (x) *Security of customer details is critical to this activity. Privacy issues such as Do Not Call registration and "ex directory" numbers have to be taken into consideration while devising the security framework for this service. We recommend central warehousing of information with agencies such as NIC with various telecom operators sending updated customer details on a periodic basis and the access to this updated and consolidated databank can be given on a read only basis using Secure connectivity methods such as Encryption/VPN etc.*

3.14.9 The Authority considered the above views of stakeholders and recommends the following:

- (i) ***The NIDQS license should have clauses to debar NIDQS operator from publishing cellular directories, selling or passing on directory data to third parties including telemarketers and prohibition from bulk disclosure of numbers, except if required by security agencies or under the law.***
- (ii) ***It should be the responsibility of the NIDQS providers to ensure that the data pertaining to one access provider is not shared with other competitors providing access service.***

- (iii) ***The NIDQS licensee shall have to adopt the practices in line with data protection measures specified in ISO standards or equivalent international standards.***
- (iv) ***The data shall be used by the NIDQSP only for providing the service as per the licence. The NIDQS license shall have provision of a penalty (say upto 2.5 crores) on the licensee for violation of data security measures or breach of any licensing conditions.***
- (v) ***The NIDQSP has to maintain secrecy and confidentiality of the data and data shall not be passed on to a third party.***
- (vi) ***The measures shall be adopted by the NIDQSP that the data is not misused, particularly by preventing the activities such as bulk copying of directory listing, restriction of number of records generated from single search etc.***
- (vii) ***The data protection measures adopted by the licensee shall also be subjected to annual audit/ verification as per the guidelines/directions/ orders issued by the licensor or TRAI from time to time.***

3.15 Licence Fee:

3.15.1 In the consultation paper the Authority had proposed that such licence fee could be in the range of 6%-10% of the revenue share. The Authority had sought the comments of stakeholders as to whether should there be any licence fee and what factors should be taken into account for determining the licence fee and the level of licence fee. The Authority had also sought the comments of stakeholders as to whether any minimum amount of license fee be specified. During consultation process the stakeholders have, in general, agreed to have a licence fee. However, the level of licence fee suggested by stakeholders varies from 1% of AGR to 7% of AGR.

3.15.2 The comments of the stakeholders received during public consultation are summarized below:

- (i) *License fee should be specified.*
- (ii) *A nominal fee is ok. Any thing free has no value and no conditions can be attached.*
- (iii) *Yes, there should be a Annual license fee. 7% could be the license fee above the revenue from the access service provider*
- (iv) *There should be a minimum license fee.*
- (v) *Licence Fees should be determined as per No. of Directory printed it may be 25% of the cost of directory.*
- (vi) *The license fee should be structured to encourage growth of the industry, permit efficient service delivery and provide for innovation to happen.*
- (vii) *In case NIDQS operators are to be authorized then there should not be any license fee. In case NIDQS is licensed then license fee of 1% of AGR can be imposed.*
- (viii) *Yes, there should only be a nominal annual license fee of say 1% of AGR.*
- (ix) *We believe that any decision on the entry, eligibility criterion as well as other technical parameters should be in line with the international practices and market demand.*
- (x) *Yes, there should be license fee in the form of revenue share @6% of AGR.*
- (xi) *Yes, License fee should be there on revenue sharing basis and a nominal license fee of 1-2% may be specified for this purpose.*
- (xii) *It should not be More than 1 Lakhs per circle. + Royalty on calls revenue as suggested under revenue share for first two year of license only.*
- (xiii) *Due to the expected level of risk and capital investment in entering this marketplace INFONXX recommends no license fee. The entry fee should be sufficient. If the Authority chooses to apply any license fee, then this should be the maximum level, not the 4-6% mentioned in 4.1.1.*

3.15.3 The Authority considered the above views of the stakeholders and is of the view that the license fee for NIDQS be 6% of the Gross Revenue (on accrual basis) on account of providing NIDQS service. However, the access service provider shall continue to be governed by the terms and conditions of their respective license, including conditions relating to payment of licence fees.

3.16 Duration of licence:

3.16.1 For provisioning of National Integrated Directory Enquiry Service the licensee will have to upgrade/ install telecom equipment in each service area at the POPs which also involves data networking and computers. Therefore, keeping in view the technological development and reasonable rate of return, the Authority proposed in the consultation paper that reasonable duration of licence, say 10 to 15 years with renewable option, could be considered.

3.16.2 During public consultation most of the consumer organisation and service providers and their associations had favoured license duration of 10 years. The others comments received during public consultation are given below:

- (i) *Duration of license can be same as that for other licenses i.e. 20 years*
- (ii) *The license period should be granted in perpetuity. This is widely consistent with practice in deregulated countries*
- (iii) *10-15 years.*

3.16.3 The Authority is of the opinion that in view of the stakeholders suggestions the license duration could be initially for a period 10 years, which could be renewed by another 10 years.

3.17 Customer Services and Quality of Service:

3.17.1 Each access service provider shall have to connect its network with the Point of Presence (POP) of the “National Integrated Directory

Enquiry Service Provider(s) (NIDQSP)” so that consumers of such access service provider are able to contact the NIDQSP(s) of their choice to avail the service. The NIDQSP shall have to ensure the continuity of service and have to provide sufficient ports at Point of Presence (POP) in each licensed service area to the access service providers to terminate their circuits so as to ensure Quality of Service. Also the access service providers will have to provide sufficient number of circuits as per the traffic at the Points of Presence of each NIDQSP in the respective service areas to ensure Quality of Service.

3.17.2 From the consumer perspective one of the important focus areas is providing accurate information, in addition to easy accessibility of directory enquiry service. In respect of the white pages information, the access provider shall need to continuously update the customer information in respect of addition, deletion, change of name, change of address, change of telephone numbers etc. and provide the updated information to each NIDQSP at periodic interval.

3.17.3 The following are the comments received from the stakeholders during public consultation.

- (i) *It is important to give accurate information in addition to easy accessibility of the service by the NIDQ service provider. It is essential for the concerned access provider to frequently update the customer information in respect of addition, deletion, change of name, numbers etc. and provide such information to NIDQ service provider at periodic intervals. Bulk changes should also be reflected in NIDQ service on immediate basis.*
- (ii) *Delay should be avoided.*
- (iii) *Best Bench Mark is Consumer Satisfaction.*
- (iv) *The QOS parameters could be that NIDQSP will ensure the continuity of service, NIDQSP will provide sufficient ports at POP, access service provider will have to provide sufficient number of circuits.*

- (v) *The quality of service parameter should be best service on lowest/cheapest price.*
- (vi) *The three service quality parameters for NIDQS are Maintaining valid database of both the telephone subscribers and exhaustive database of products and services falling under the ambit of Yellow Page enquiry, accessibility to the consumer/user of service and Response time and courteous service.*
- (vii) *Response time to customers for assistance is the major parameter to be taken into account. The existing parameter and benchmark in the QOS regulations would be adequate.*
- (viii) *The Authority may specify QoS norms for NIDQS similar to norms on parameters like 'response time to the customer for assistance' specified for access providers under TRAI's Regulation.*
- (ix) *TRAI should formulate QoS standard i.e. Parameters and benchmarks for NIDQS. Some parameters which could be defined could be; Call completion rate, Agent response time etc.*
- (x) *Some parameters, which could be defined, are Accessibility, Quality of Service Delivery, Accuracy of Information, Call completion rate, Agent response time, customer satisfaction done through external body etc..*
- (xi) *Courtesy, politeness, accuracy and promptness are the most important parameters for determination of performance of such service. However, we may have to evolve methods and mechanisms to benchmark and measure the same.*
- (xii) *Additionally, the quality and correctness of the information supplied to the caller may also be included.*
- (xiii) *Make data available from all Network Operators in all areas of India, updated daily and managed in a non-discriminatory manner. Services must be operated in line with relevant standards of privacy protection that Indian customers would expect. If Call Completion (connecting a call onward to a number) is part of the NIDQS then this service should have*

sensible limitations with regard to certain sensitive service areas such as those laid out by ICSTIS in the UK Note 4.

- (xiv) *The parameters could be average wait time, the less the consumer has to wait, the better the experience, average handling time, Cost, Accuracy of information supplied.*

3.17.4 After considering the views of stakeholders, ***the Authority is of the opinion that the quality of service parameters should be there on ease of accessing the service which include both call completion rate and connectivity to the agents of NIDQS. There could also be parameters for assessing customer perception of service. Some of the parameters suggested by the stakeholders are subjective in nature and this could be covered through customer satisfaction survey (CSS). TRAI will prescribe the quality of service (QoS) norms in this regard from time to time.***

3.18 Performance obligations:

3.18.1 It was proposed in the consultation paper that the roll out could be completed in the first year itself or in a phased manner with specified number of service areas to be covered with establishment of POPs and directory enquiry system on an yearly basis during the specified roll out period. The general view of the stakeholders during public consultation was that performance obligations will have to be specified in the license. The other views received during public consultation are summarized below:

- (i) *Performance obligation should be under special QoS benchmarks.*
- (ii) *There is not necessary for any obligation for NIDQS.*
- (iii) *The criteria could be maintenance of database, tackling of redundancy, quality of service delivery in terms of user frequency, comprehensiveness of the database in terms of entries offered to the consumer for Yellow Page enquiry and clarity in print and communication network.*

- (iv) *The authorization/ license may prescribe a broad performance obligation of covering half of service areas in first year and remaining circles in second year. A coordination committee may be setup with representatives from NIDQS operators and TRAI, which could decide on the deadlines, quality, and interconnection.*
- (v) *The roll out could be completed in a phased manner with specified number of service areas to be covered with establishment of POPs and directory enquiry system on an yearly basis during the specified roll out period.*
- (vi) *Some of the criteria could be that Roll out to be completed within specified period, the time to answer a call should be less than 10 seconds for 90% of the calls (this is as per ITU norms), adequate number of junctions should be provided so that the call failure rate is less than 2% and the enquiry service should be provided in national/state language as well as in English.*
- (vii) *There should be performance obligations especially with regard to the roll-out period, number of languages in which the service is available, number of LSAs for which the service is available and the number of Access Service Providers, it has been accredited to.*
- (viii) *On failure there should be a penalty too and on subsequent failure license of such service provider should be pass to other companies and the license amount should be forfeited.*
- (ix) *Service requirements should be limited to the NIDQS providing information to callers that is readily available from the carriers. Network operators should provide daily listing data updates. NIDQS will post these updates on a daily basis.*
- (x) *The following service level obligations should be specified: 80% of calls must be answered 3 rings/ 10secs. 97% of calls should be answered; 3% or less abandoned calls. 85% accuracy of data supplied.*

3.18.2 The Authority considered the above views of stakeholders and is of the view that NIDQS, being a public utility service should be rolled out faster. The Authority feels that interconnection is to be provided by access service providers and also since POI is proposed in each service area, the NIDQS licensee could roll out the services at a faster rate when compared to roll out in other licenses. ***The Authority, therefore, recommends that the NIDQS licensee shall roll out the service in eleven service areas in the first year and the remaining service areas in the second year.***

3.19 **Bank Guarantee:**

(a) Performance Bank Guarantee:

3.19.1 Most of the consumer organisations and service providers have favoured that there should be a performance bank guarantee. As regards the quantum of performance bank guarantee there were different views. These are summarized below:

- (i) *This should be for Rs. 3 crores for a metro circle, Rs. 2 crores for other A grade circles, Rs.1 crore for B grade circles and Rs. 50 for C grade circles.*
- (ii) *There is no necessity for any bank guarantee.*
- (iii) *A nominal bank guarantee of around Rs 1 crore may be prescribed for an NIDQS operator.*
- (iv) *Value of PBGs should be 5% of entry fees and the PBG should be in favour of DoT to ensure performance obligations.*
- (v) *Rupees ten lakh as in the case of Other service providers.*
- (vi) *There may be PBG for nominal amount of around Rs 25 lakhs for metro and A category circles, Rs 15 lakhs for circle B and Rs 10 lakhs for circle C.*
- (vii) *In any case bank guarantee required for such kind of obligation will be not more than 6 lakhs rupees.*
- (viii) *This could be 25% of the licence fees.*

(ix) *Competition and freedom of switching service provider will act as an inbuilt guarantee.*

3.19.2 *The Authority considered the above views and is of the opinion that a performance bank guarantee of Rs 2.5 crore may be prescribed for an NIDQS operator for two years.*

3.19.3 *The licensee should submit Performance Bank Guarantee (PBG) before signing of the licence agreement. PBG shall be valid for a period of one year and shall be renewed from time to time as may be directed by the Licensor. Further on completion of one year from the effective date of licence and after meeting the rollout criteria stipulated for first year, the PBG shall be reduced to Rs. 1.25 crores on self certification provided by the Licensee. Further on fulfilling the roll out obligations, the balance PBG shall be released after verification.*

3.19.4 *The licensee, on its own, shall extend the validity period of the PBG on similar terms at least one month prior to date of its expiry without any demand or notice from the Licensor on year to year basis. Any failure to do so, shall amount to violation of the terms of the licence and entitle the Licensor to encash the PBG and to convert it into a cash security, without any reference to the licensee at his risk and cost. No interest or compensation whatsoever shall be payable by the Licensor on such encashment.*

3.19.5 *Without prejudice to its rights of any other remedy, the Licensor may encash the PBG in case of any breach, in the terms & conditions of the Licence.*

(b) Financial Bank Guarantee (FBG):

3.19.6 *The Authority also recommends that the Financial Bank Guarantee may be commensurate with the annual licence fee, which could be initially Rs.1 crore.*

3.19.7 The licensee should submit Financial Bank Guarantee (FBG) before signing of the license agreement. FBG shall be valid for a period of one year and shall be renewed for such amount from time to time as may be directed by the Licensor.

3.19.8 The licensee, on its own, shall extend the validity period of the FBG on similar terms at least one month prior to date of its expiry without any demand or notice from the Licensor on year to year basis.

3.20 Amendments to the licence conditions:

3.20.1 The Authority in its recommendations to the Government on 24th April, 2008 had proposed certain amendments to the various access service licence agreements, keeping in view the requirement for publications of integrated telephone directory for fixed line (wireline and fixed wireless service) telephones SSA-wise and for the National Integrated Directory Enquiry Service (NIDQS).

**Government of India
Ministry of Communications & Information Technology
Department of Telecommunications
Sanchar Bhavan, New Delhi – 110 001**

**D S Mathur
Secretary**

D.O. No. 7-3/2007-PHP
October 16, 2007

Dear Shri Mishra,

The Telecom Regulatory Authority of India (TRAI) vide letter No. 305-12/2004-QOS dated 5th May 2005 have given its recommendations on Publication of telephone Directory & Directory Enquiry Services. The recommendations have been examined in DoT. We are of the view that:

1. For fixed telephones:

- (i) There should be SECONDARY SWITCHING AREA(SSA) – wise Integrated Printed Telephone Directory and it should be appropriately priced.
- (ii) The number of copies to be publishing in different languages will depend on the requirement of customers.
- (iii) The agency engaged in publishing of telephone directory may be the incumbent operator.
- (iv) Supply of telephone directory in the form of CD-ROM could be an alternative to the willing customers.
- (v) The operators may maintain their directories on the web.

2. For Mobile Telephones:

- (i) There may not be printed telephone directory for mobile subscribers.

3. For Directory Enquiry Service:

- (i) There should be National Integrated Directory Enquiry Service which would have directory information of fixed telephones as well as mobile telephones (both prepaid and post paid) customers of telecom operators.
- (ii) For fixed telephones opt-out approach and the mobile telephones opt-in approach by the customers should be adopted.
- (iii) The National Integrated Directory Enquiry Service shall be managed by a separate agency.

You are requested to formulate the terms and conditions for:

- (i) SECONDARY SWITCHING AREA(SSA)-wise Integrated Printed Telephone Directory for fixed line telephones including detailed guidelines on the printing of directory, charges to be paid by operators, number of copies etc. for publishing of telephone directory ; and
- (ii) “National Integrated Directory Enquiry Service” for fixed and mobile telephones.

Further, since the license agreement for UASL / fourth mobile operators provides for “ Determination of TRAI with regard to publication of telephone service directory containing information of subscribers of Telecom Service shall be applicable and binding”, you may issue appropriate directions to all the operators, confirming to the above approach.

We shall be doing the needful for amendment in the Indian Telegraph Rules after receipt of the said terms and conditions from TRAI.

With regards,

Yours sincerely,

(D. S. Mathur)

Shri Nirpendra Misra
Chairman
Telecom Regulatory Authority of India
New Delhi

QUESTIONNAIRE

Your opinion about the approach to be adopted for the National Integrated Directory Enquiry Service (NIDQS)

Background

The Telecom Regulatory Authority of India (TRAI) is preparing the recommendations on the terms and conditions for National Integrated Directory Enquiry Service (NIDQS). In this regard TRAI seeks the views of mobile phone customers on the approach to be followed for listing of mobile phone numbers in directory enquiry service. The details of the two approaches, namely, ‘Opt-Out’ approach or ‘Opt-In’ approach to be followed for directory enquiry listing are explained below:

<p>‘Opt-Out’: In this approach a mobile phone customer can request to his service provider that his mobile phone number, name and address should not be listed in National Integrated Directory Enquiry Service (NIDQS). Consequently such mobile phone number will not be available through directory enquiry. Mobile phone numbers of all other customers who have not given such requests shall be listed in NIDQS by default.</p>	<p>‘Opt-In’: In this approach mobile phone number of a customer shall not be listed in National Integrated Directory Enquiry Service (NIDQS) unless he specifically request to his service provider to list his mobile phone number, name and address in the NIDQS. In such a case the mobile phone numbers of only those customers who have requested for listing in NIDQS shall be available through directory enquiry.</p>
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Note:

- If your name, mobile phone number and address is listed in the National Integrated Directory Enquiry Service, the directory enquiry service provider will be free to pass on the same to any one enquiring about it.
- The information sought below is only for the purpose of a study and shall not be taken as your consent regarding listing in the National Integrated Directory Enquiry Service (NIDQS).

2. ***Kindly read and understand the information given above before proceeding to answer to the questions given below. The questions may be replied by tick mark (✓) in the appropriate box:-***

Q.1. According to you, which approach should be recommended for listing of mobile phone numbers in the National Integrated Directory Enquiry Service (NIDQS)?

(a) Opt-Out (b) Opt-In

Q.2. Would you like your mobile phone number, name and address included for National Integrated Directory Enquiry Service(NIDQS)?

(a) Yes (b) No

Signature:

Name and address:.....

Mobile phone number (Optional).....