



Telecom Regulatory Authority of India



ANNUAL REPORT 2005-06

Telecom Regulatory Authority of India

Annual Report

2005-2006

A-2/14, Safdarjung Enclave, New Delhi-110 029
Tel.: 91-11-26163107, 26161669 Fax : 91-11-26103294
E-mail: traid@del2.vsnl.net.in Website : <http://www.traid.gov.in>

Letter of Transmittal

To the Central Government through Hon'ble Minister of Communications & Information Technology

It is my privilege to forward the 9th Annual Report of the Telecom Regulatory Authority of India to be laid before each House of Parliament. The report is for the year 2005-2006. Included in this report is the information required to be forwarded to the Central Government under the provisions of the Telecom Regulatory Authority of India Act, 1997, as amended by TRAI (Amendment) Act, 2000.

The report contains an overview of the Telecom Sector and a summary of the key initiatives of TRAI on the regulatory issues with specific reference to the functions mandated to it under the Act. The Audited Annual Statement of Accounts of TRAI has also been included in the Report.



(NRIPENDRA MISRA)
CHAIRPERSON

28th September, 2006

TABLE OF CONTENTS

Table No.	Subject	Page No.
A	Composition of Authority	1
B	Mission, Aims and Objectives	10
C	Overview	12
D	Agenda for the Future	26
PART-1	Policies and Programmes	29
1.1	Review of General Environment in the Telecom Sector	31
1.2	Review of Policies and Programmes	64
PART-II	Review of Working and Operation of the Telecom Regulatory Authority of India in Telecom Sector	83
PART-III	Functions of Telecom Regulatory Authority of India in respect of matters specified in Section 11 of the Act	117
PART-IV	Organisational matters of Telecom Regulatory Authority of India including financial performance	167
4.1	Organisational matters	169
4.2	Audited Accounts of TRAI 2005-2006	181
4.3	Audited Accounts of TRAI Contributory Provident Funds 2005-06	225



LIST OF TABLE

Table No.	Subject	Page No.
Part – 1		
Charts-1 & 2	Reduction in Tariffs for National Long Distance Service and International Long Distance Service during the period prior-1/5/1999 to 31/3/2006	33
1.1	Total Number of Licenses issued for Service Areas and Number of Licenses for which service started by 31 st March, 2006 (other than BSNL & MTNL)	34
1.2	Subscriber Base of Basic Services as on 31 st March, 2006	36
1.3	Details of Equipped Switching Capacity, Net Capacity Addition, etc. in respect of Basic Service Providers as on 31 st March, 2006	39
1.4	Direct Exchange Lines and Waiting List during 1989-90 to 2005-06 for BSNL and MTNL (combined)	41
1.5	Total DELs installed by the Basic Service Operators and the total Waiting List as on 31 st March, 2006	42
1.6	Operator-wise and Circle-wise details of Public Call Offices as on 31 st March, 2006 vis-à-vis March, 2005	43
1.7	Operator-wise and Circle-wise status of VPTs as on 31 st March, 2006	45
1.8	Subscriber Base of Mobile (GSM and CDMA) Services from March, 2002 to March, 2006	47
1.9	Market Share of different Mobile Operators in terms of subscriber base as on March, 2006	48
1.10	List of Cellular Mobile (GSM and CDMA) Service Providers in operation as on 31 st March, 2006	48



LIST OF TABLE

Table No.	Subject	Page No.
1.11	Service-area wise list of Mobile Service Providers (GSM and CDMA) as on March, 2006	49
1.12	Mobile Subscribers (GSM and CDMA) as percentage of Basic Subscribers in India - March,2000 to March, 2006	53
1.13	Market Share of different GSM Operators in terms of subscriber base as on 31 st March, 2006	54
1.14	Market Share of different CDMA Operators in terms of subscriber base as on 31 st March, 2006	55
1.15	Number of Licensees and their Subscriber Base for Cellular Mobile (GSM) services as on 31 st March, 2006	55
1.16	Subscriber Base for Mobile (GSM) Services in Metros and Circles from March, 2002 to March, 2006	55
1.17	Additional GSM Mobile Subscribers added and annual growth rate in different Circles during 2003-04, 2004-05 and 2005-06	56
Figure 1.1	PSU Operators' Subscriber Base (1998-2006)	57
Figure 1.2	Private Operators' Subscriber Base (1998-2006)	58
1.18	Subscriber Base of the Radio Paging Services from March, 1999 to March, 2006	59
1.19	Number of VSAT connections as on 31 st March, 2006	60
1.20	Number of PMRTS Customers as on 31 st March, 2006	60
1.21	Number of Internet Subscribers as on	62



LIST OF TABLE

Table No.	Subject	Page No.
	31 st March, 2006	
1.22	Market Share of Top Five Internet Service Providers in terms of subscriber base as on 31 st March, 2006	62
1.23	List of Internet Telephony Service Providers as on 31 st March, 2006	63
Annex Table 1	Internet Service Providers who have started Internet Service and their subscriber base as on 31 st March, 2006	77
Part – II		
Figure 2.1	Widening of Rural and Urban Tele-density Gap (March, 1996 to March, 2006)	94
Figure 2.2	Decline in Cellular Tariff and Growth in Cellular Subscriber Base, March 1998 to March, 2006	100
Part–III		
3.1	Telecommunication Tariff Orders (Amendments)	120
3.2	Regulations issued by TRAI during 2005-06	126
3.3	List of Recommendations made by the Authority during the year 2005-06	135
Part–IV		
4.1	Statement showing officers nominated for Training Programme during the year 2005-06	175
4.2	Seminars / Workshops / Meetings attended by Authority & TRAI officials during 2005-06	177



A. COMPOSITION OF AUTHORITY

The Telecom Regulatory Authority of India Act, 1997, as amended vide the Telecom Regulatory Authority of India (Amendment) Act, 2000, specifies that the Authority shall consist of a Chairperson and not more than two whole-time Members and not more than two part-time Members.

As of 31st March, 2006, the Authority consisted of the following:

Shri Nripendra Misra, Chairperson,

Shri P.K.Sarma, Member,

Dr.Arvind Virmani, Part-time Member,

Prof. (Dr.) Sanjay Govind Dhande, Part-time Member,

Shri Pradip Baijal assumed office as the third Chairperson of TRAI on 22nd March, 2003 and relinquished charge on 21st March, 2006. The other whole-time Member, Dr.D.P.S. Seth, relinquished charge on 9th March, 2006 on completion of tenure.



CHAIRPERSON



NRIPENDRA MISRA
(From 22.03.06 onwards)

Shri Nripendra Misra joined as Chairman, Telecom Regulatory Authority of India on 22.03.2006. Earlier, he was Secretary, Department of Telecommunications & Chairman, Telecom Commission, Govt. of India upto March, 2005. As Secretary, Department of Telecommunications & Chairman, Telecom Commission, Government of India, he was responsible for all matters relating to telecom sector in the country including licensing, public-private sector participation in growth of telecom services, telecom network policies, spectrum management, rural telephony, etc. He held several senior executive and policy level positions during his career span of nearly 38 years in the U.P. State and Government of India. He served as Special Secretary, Finance, Govt. of Uttar Pradesh (1978-80) and as Director (World Bank-IMF Division) in the Department of Economic Affairs, Ministry of Finance (1981-84) and further as Joint Secretary, Fund Bank Division (1984-85) in the same Department. From August, 1985 to July, 1988, he served as Minister (Economic) in the Indian Embassy, Washington D.C. and was responsible for all aspects of trade and economic relations between India and USA including monitoring of Multi-lateral (World Bank, IFC & IMF) and bilateral aided programmes, and also for promotion of investment opportunities in India from US private sector.

He was Secretary in the Department of Institutional Finance, Taxation and Excise, Govt. of Uttar Pradesh (1988-89) and from January, 1990 to October, 1992 served as Principal Secretary to the Chief Minister, Govt. of Uttar Pradesh. As Principal Secretary to the Chief Minister, he played a major role in the formulation and implementation of new industrial, trade and fiscal policies as well as agricultural and rural development policies of



the state. During October, 1992 to January, 1994, he was the Chairman and Chief Executive Officer, Greater NOIDA Industrial Development Authority and was responsible for integrated development of the new industrial town. During January, 1994 to July, 1995, he served as Member, Board of Revenue, Govt. of Uttar Pradesh and further as Principal Secretary, Home-II, Govt. of Uttar Pradesh during 1995-96.

From November, 1996 to January, 2002, he served in the Ministry of Commerce as Additional Secretary (November, 1996 to August, 2000) / Special Secretary (August, 2000 to January, 2002). He was mainly responsible for all matters relating to WTO, Export-Import policy, bilateral and regional trade agreements and bilateral trade relations with European Union and Member Countries.

As Secretary to the Govt. of India in the Department of Fertilizers (January, 2002 to January, 2004), he was responsible for policies relating to fertilizers production, demand-supply of agricultural inputs in the country, pricing policy including policies for resource poor farmers, determination of efficient norms of production on an annual basis with key emphasis on fuel and energy indexes.

Shri Misra was a Member on the Board of Directors of National Co-operative Development Corporation, UP Finance Corporation, KRIBHCO and IFFCO, and was also a Member to the RBI Committee on Urban Co-operative Bank and the Internal Review Committee for National Bank of Agricultural Refinance and Development.

He did Masters in Public Administration from the Harvard University in 1981. He has to his credit various published articles in noted journals and periodicals.



CHAIRPERSON



PRADIP BAIJAL
(Up-to 21.03.06)

Shri Pradip Bajjal, a Graduate in Mechanical Engineering from IIT Roorkee, superannuated as Secretary to the Government of India, Ministry of Disinvestment in February, 2003. He held several important policy level positions during his career of nearly 35 years at the State and Union levels. He served as Registrar, Co-operative Societies (1978-82) and as Secretary, Department of Industries, Finance and Commercial Taxes, Govt. of Madhya Pradesh during 1988-1993. As Secretary, Department of Industries, he assisted the State Govt. in privatizing NITEL, a software company, and was Chairman, OPTEL, the only optical fibre company in the country, during that period.

From August, 1994 to December, 1999, he served in the Ministry of Power, Govt. of India in the capacity of Joint Secretary, Additional Secretary and Special Secretary. During this period, he assisted the Central Government in Power Sector reforms, e.g., issuance of Electricity Regulatory Commission Act, 1999, unbundling of the power sector into generation, transmission and distribution companies, setting up of Central and State Electricity Regulatory Commissions and privatization of distribution in States of Orissa and Delhi. He also assisted the Government in privatizing ABL Ltd., a power and cement equipment manufacturing company in 1995.

As Secretary to the Govt. of India in the Ministry of Disinvestment (December, 1999 to February, 2003), he laid down the entire gamut of rules and regulations for privatization, standardized privatization procedures, share purchase agreements, shareholding agreements, public offering rules etc., privatised a number of companies and initiated preparatory work for launching of IPOs for Maruti, IOC, CMC, etc.

Shri Bajjal's tenure as the Chairman, TRAI, has been marked by the TRAI making several



recommendations to the Government in regard to the Telecom sector as well as Broadcasting & Cable Services which are of far reaching consequences. Shri Baijal joined TRAI on 22nd March, 2003. During his tenure, he was able to facilitate through various policies which led to accelerating competition, substantial reduction of tariff, massive increase in subscriber base for cellular mobile services, deregulation of tariff, resolving of interconnection issues and interim measures on tariff for cable services, etc. During his tenure, there has been phenomenal growth in mobile subscriber base (from about 13 million as on 31.3.2003 to 90.14 million as on 31.03.2006).

Shri Baijal was a visiting fellow at the University of Oxford for one year during 1987-88. He has to his credit various published articles in noted journals and periodicals.

MEMBER



DR. D. P .S. Seth

Dr. D.P.S Seth is a graduate in Electrical Engineering from the Indian Institute of Science, Bangalore. He has done his Ph.D from University of Waterloo, Canada in Microwave Engineering. He belongs to the 1965 batch of Indian Telecom Service. Dr. Seth has worked in research and development for 18 years at the beginning of his career and thereafter has been associated with Planning, Operations and Maintenance of services in various headquarters and field postings. He has been closely associated in the formulation of policy documents for the Department of Telecom and Vision Document for MTNL. He was General Manager in MTNL in charge of Specialist Group and later as Principal GM in MTNL and subsequently in Punjab. He has also worked as Chief General Manager in North East and Haryana Circles. His headquarter postings included areas of Long Term Planning, Long Distance Planning and the



Customer Services. After the announcement of the NTP '99, he headed several teams within DoT to implement the process of liberalization at a fast pace. Regulatory guidelines were drawn up and after obtaining the comments of TRAI, incorporated in the licenses. He was also associated with the drafting of the Communications Convergence Bill, 2000 under the chairmanship of eminent jurist Mr. Fali S. Nariman. He was the first Chairman & Managing Director of Bharat Sanchar Nigam Ltd (BSNL), when the model of "low tariff high traffic" was introduced which has been vindicated by the rapid growth in traffic recorded by BSNL. He held the post of Member (Services) & ex-officio Secretary to the Government of India in the policy making apex body of Telecom Commission of India. He joined Telecom Regulatory Authority of India (TRAI) as a Full Time Member on the 10th March, 2003.

MEMBER



P. K. SARMA

Shri P.K.Sarma, an officer of 1965 batch of Indian Revenue Service, joined as Member of TRAI on 10th April, 2003, after taking voluntary retirement from the post of Chairman, Central Board of Direct Taxes (CBDT) which is the highest post in the Direct Tax administration in India. He held many challenging assignments in the Income Tax Department including those of Chief Commissioner of Income Tax, Kolkata, Director General of Income Tax (Investigation) and Member, CBDT, before being elevated as Chairman, CBDT in December, 2001. Shri P.K. Sarma who holds a degree of Bachelor of Arts from Allahabad University, has also attended a Course on Public Finance at Harvard University. He participated in negotiations leading to several bilateral tax treaties and also attended a number of international seminars on tax administration and tax reforms. He is often called upon to take up lecture assignments in the training academies for Central Services.



**MEMBER
(PART-TIME)**



DR. ARVIND VIRMANI

Dr. Virmani is Principal Advisor, Planning Commission. He also serves as Chairman, Board of Trustees of SBI Mutual Fund and Director on the Board of Life Insurance Corporation of India.

He was Director & Chief Executive, Indian Council for Research on International Economic Relations (ICRIER). He has served as Senior Economic Advisor in the Department of Economic Affairs, Ministry of Finance and Advisor (Policy Planning) to Finance Minister in 1991-92 and 1992-93. Before joining the government, he was Senior Economist in the World Bank Research Department and was acting Chief of the Public Economics Division for a part of this tenure.

He was a Member of the Task Force on "Global Strategic Developments: Implications and Suggested Response" set up by National Security Council Secretariat and a Member of the Technical Advisory Committee (TAC) on Money, Foreign Exchange and Government Securities Markets, Reserve Bank of India. He Chaired the Working Group on Public Debt management (middle office) and Inter-ministerial Group on Customs duty reform, and was Member-Secretary of the Steering Group on Foreign Investment. He was a Member of the Joint Study Group (JSG) on India China & India-Korea trade and economic co-operation. He served as member of the Appellate Tribunal for the Securities & Exchange Board of India (SEBI) and the Depositories Act. He has served as Director of Punjab National Bank & Allahabad Bank and Trustee of the Unit Trust of India (UTI). Was Member of the RBI Technical Advisory Group on Money and Government Security markets, the Steering Group on International Financial Standards and Codes and the UTI committee on reform and stabilization of the US64 scheme.

He has researched on Macroeconomics and Growth, International Trade and Tariffs and Credit



markets. He has advised and written extensively on all aspects of economic reforms including the books, titled, "Accelerating Growth and Poverty Reduction – A Policy Framework for India's Development" and "Propelling India From Socialist Stagnation To Global Power", Vol. I & II.

**MEMBER
(PART-TIME)**



PROF. (DR.) S.G. DHANDE

Prof. Sanjay Govind Dhande joined as Member (Part-time) on 15.7.2003. Currently, he is the Director of the Indian Institute of Technology, Kanpur since October, 2001. He also serves as a Member of the Scientific Advisory Committee to the Prime Minister. Further, he is a member of various Governing Bodies of different Institutes and Research Organizations. As Director, IIT Kanpur, he gave impetus to collaboration with Industry which included joint academic programmes, establishment of industrial chairs at the Institute, joint research facilities on the Campus and Technology Business Incubation Unit. The Indian Institute of Technology, Kanpur witnessed tremendous growth in terms of Infrastructure and Research facilities such as construction of new department buildings, hostel buildings, beautification and acquisition of advance Lab equipments (SQUID, Computing facilities, etc.) and space developments in tune with the changing needs and the increasing student strength. Prior to October, 2001, he was a faculty at IIT, Kanpur for 22 years and made significant contributions as an academic in teaching, research and Industrial Consultancy and held positions of Dean, Research and Development, Head, Nuclear Engineering and Technology Programme, Head, Department of Mechanical Engineering, Associate Head, Computer Centre, Co-ordinator, Computer Aided Design Project, Professor, Department of Mechanical Engineering. He was also a Post -Doctoral



Research Associate in the Department of Mechanical Engineering, University of Florida and Rensselaer Polytechnic Institute, New York, USA. He also worked as Visiting Assistant Professor, Department of Mechanical Engineering, University of Florida and Visiting Scientist, Deneb Robotics, Detroit, USA. Prof. Dhande is also working on a Govt. of India and UNDP sponsored project for National Centre for ME & CE CAD since November, 1991.

Prof. Dhande is the author of a book on Computer Aided Engineering Graphics and Design and co-author of two other books. He has to his credit more than ninety publications in different national/international journals and more than fifty consultancy projects. He is also a recipient of several national and international awards and honours.



B. MISSION, AIMS AND OBJECTIVES

B.1 Preamble

1. The Telecom Regulatory Authority of India (TRAI) has always endeavored to encourage greater competition in the telecom sector together with better quality and affordable prices in order to meet the objectives of New Telecom Policy, 1999. Vide a Notification dated 9th January, 2004 of the Government, Broadcasting and Cable Services also have been brought within the definition of 'telecommunication service' in terms of section 2(k) of the Telecom Regulatory Authority of India Act, 1997 as amended by the the TRAI (Amendment) Act, 2000. A number of policy initiatives were taken in 2005-2006 to transform the telecom sector including the broadcasting and cable services and extend the scope, availability and reach of these services in India.

B.2 Mission of TRAI

2. TRAI's mission is to create and nurture conditions for the growth of telecommunications including broadcasting and cable services in the country in a manner and at a pace which will enable India to play a leading role in the emerging global information society.

B.3 Goals and Objectives of TRAI

3. The goals and objectives of TRAI are focussed towards providing a regulatory regime that facilitates achievement of the objectives of the New Telecom Policy (NTP) 1999. As shown by the various initiatives mentioned later in this Report, the goals and objectives of TRAI are as follows:

- Increasing tele- density and access to telecomm-unications in the country at affordable prices,
- Making available telecommunication services which in terms of range, price and quality are comparable to the best in the world,



- Providing a fair and transparent policy environment which promotes a level playing field and facilitates fair competition,
- Establishing an interconnection regime that allows fair, transparent, prompt and equitable interconnection,
- Re-balancing tariffs so that the objectives of affordability and operator viability are met in a consistent manner,
- Protecting the interest of consumers and addressing general consumer concerns relating to availability, pricing and quality of service and other matters,
- Monitoring the quality of service provided by the various operators,
- Providing a mechanism for funding of net cost areas/ public telephones so that Universal Service Obligations are discharged by telecom operators for spread of telecom facilities in remote and rural areas,
- Preparing the grounds for smooth transition to an era of convergence of services and technologies,
- Promoting the growth of coverage of radio in India through commercial and non-commercial channels,
- Increasing consumer choice in reception of TV channels and choosing the operator who would provide television and other related services.



C. OVERVIEW

4. Numerous policy initiatives were taken during 2005-06 to further facilitate reforms in the telecom sector including broadcasting and cable services and extend the scope, availability and reach of these services in India, which are briefly summarized as under:-

(a) Recommendations on publication of Telephone Directory & Directory Enquiry Services

5. Directory services are general public utility services. The Government had, therefore, made provisions in the various licenses for printing of telephone directory and directory enquiry services. However, the directory enquiry service is not available today in respect of fixed services offered by private service providers and also for cellular mobile services offered by both government and private cellular mobile service providers. In the present multi-operator, multi-service scenario, an individual operator based Directory Enquiry Service would not have much utility. As such, a need was felt for Directory Enquiry Service across different networks and different service areas. TRAI, therefore, gave its recommendations to the Government on 5th May, 2005. Salient features of these recommendations are:

- Uniform provision for publication of telephone directory and directory enquiry services in all License agreements.
- An integrated telephone directory for fixed line customers at LDCA (Long Distance Charging Area) level, covering the fixed line customers of all Basic Service Operators (BSOs)/Unified Access Service Providers (UASPs). The incumbent operators i.e. BSNL and MTNL shall publish the printed integrated telephone



directory of fixed line customers and other operators shall compensate them towards the cost of publication.

- Each cellular operator shall individually publish printed telephone directory of its customers at circle level till the Directory Enquiry Service is fully established to provide a single integrated data base for publication of an integrated mobile directory, which is the ideal situation.
- The cellular mobile directory should contain entries of only those customers who have explicitly given their consent. Pre-paid customers shall be excluded from the printed directory.
- The periodicity of publication of the printed directory shall be annual, with the main Directory published in the first year followed by two Supplementary Directories.

(b) Recommendations on Spectrum Related Issues

6. Department of Telecommunications vide its letter dated 17th November, 2003 had sought TRAI's recommendations on efficient utilization of spectrum, spectrum pricing and spectrum allocation procedure. For the growth of wireless services, spectrum is the most vital and scarce commodity and its inadequacy may not only hamper the growth but also adversely affect the quality of service. Present level of spectrum allocated to Mobile operators is much below the international averages. After a detailed consultation process, TRAI furnished its recommendations on spectrum related issues to the Government on 13th May, 2005 keeping in mind the growth objectives, present and expected market trends, international practices, technological developments, etc. Spectrum policy recommendations are



based on the objectives of the Government, viz., target of 200 million mobile phones by December, 2007, adequate spectrum to operators to permit long term spectrally efficient planning, reduced input costs for telecom services so as to increase coverage in semi-urban and rural areas and ensuring roll out of 3G services.

(c) Reduction in Access Deficit Charges (ADC) and resultant reduction in tariff and phenomenal increase in subscriber base

7. The Authority had mentioned in its IUC Regulation dated 6th January 2005 that it will address a number of issues through a Consultation Paper. Accordingly, TRAI released a Consultation Paper on 17th March, 2005 which addresses a wide range of issues, including (a) Justification of ADC on Fixed Wireless Lines and admissibility of ADC for non-BSNL Fixed Line Operators, (b) ADC as Percentage of Revenue, and its various variants including mixed models, higher ADC on NLD and ILD calls etc., (c) Interconnection Usage Charges (Carriage and Termination issues) including those for Incoming International calls, and whether to have differential rates for carriage and termination, and (d) Implications of increasing disbursement of USO (Universal Service Obligation) Fund on the quantum of ADC payable. On the basis of the comments received during the Open House Sessions as well as the comments received from the stakeholders and its own analysis, TRAI issued the new IUC Regulation on 23.02.2006 fixing the Interconnect Usage Charges and Access Deficit Charges. Through this IUC Regulation dated 23.02.2006, TRAI has fixed the ceiling on carriage charges per minute for Long Distance Calls within India at Rs. 0.65 per minute irrespective of the distance with a view to promote lower domestic prices and to give a greater impetus to subscriber growth. Prior to this regulation, the carriage



charges were distance based (i.e., Rs.0.20 for distance up to 50 kms., Rs. 0.45 for 200 kms., Rs.0.50 for 500 kms., and Rs.1.20 for above 500 kms.)

8. Due to various measures taken including cost based IUC regime, reduction in ADC and tariffs, there has been a phenomenal growth in tele-density from 9.08% as on 31.3.2005 to a figure of 14.0% as on 31.03.2006. With the current regulatory policies and the ongoing thrust towards cost-based interconnection, the target of a tele-density of 15 by 2010 will be reached this year itself , i.e., 4 years ahead of schedule.

(d) Recommendations on Issues relating to Virtual Private Network (VPN) Services by ISP Licensees

9. DoT had sought TRAI's recommendations regarding issues of entry fee and annual licence fee for provision of VPN services by ISP licencees in the country. After consideration of the comments received from various stakeholders, TRAI gave its recommendations to the Government on 16th August, 2005. The main recommendations include : (a) levying of 'nil' entry fee for the ISPs who provide Layer-3 VPN service, (b) levying of one time entry fee of Rs.30 lakhs to ISPs who provide Layer-2 VPN service, (c) 'nil' annual licence fee (revenue share) to be levied on ISPs for Layer-2 and Layer-3 VPN services.

(e) Recommendations on Growth of Telecom Services in Rural India

10. TRAI issued a consultation paper on "Growth of Telecom Services in Rural India" on 27th October, 2004. After detailed consultation process, TRAI finalized its recommendations on 3rd October, 2005. The recommendations provide for a higher quantitative and qualitative growth in telecom services in the country, particularly in rural areas. TRAI



has suggested that without focus on rural areas, sizeable growth in telecom sector would not be possible. Since tele-density is interlinked with the level of development, the large differential between rural and urban tele-density cannot be sustained. The Authority has recommended that the present policy should shift from subsidy based on individual connections (Direct Exchange Lines [DELs], Village Public Telephones[VPTs], etc) to network infrastructure expansion approach. If the proposed scheme is implemented early then it is expected that we would achieve rural tele-density of around 15% by December 2007 against the present rural teledensity of around 2% (fixed lines), and this combined with expected urban tele-density of around 43% would take the overall tele-density to 22.98% meeting the target of 250 million subscribers set out by the Government. The salient features of the recommendations are : (a) Sharing of infrastructure to receive support from USO, (b) Supporting backbone infrastructure through USO fund, (c) Discount in Annual License Fee and Spectrum Charges linked with Rural Coverage, (d) Reduction of rural VSAT (Very Small Aperture Terminal) license fees and spectrum charges and provision of transponders at affordable rates, (d) No right of way charges for networks in rural areas, (e) Niche Operators to be supported from USO Fund and providing exemption to them from spectrum charges, (f) No spectrum fee for usage of CorDECT and similar technologies in rural areas as well as for usage of 450 MHz, etc.



(f) Ceiling Tariff Fixed for Domestic Leased Circuits (DLC)

11. Domestic Leased Circuit (DLC) is the medium of carriage of data and voice services within the country. The service is provided by Basic Service Operators / Unified Access Service Licensees, National Long Distance Operators and

Infrastructure Service Providers Category II. The key users of the service in India are Internet Service Providers, Information Technology (IT) and IT-Enabled Service Enterprises like Business Process Outsourcing (BPO) Units, Telecommunication Service Providers, Corporate Enterprises, etc.

12. The Authority found that competition was not fully effective in the provision of DLCs despite increase in the number of players in the market. Further, rapid technological advances have sharply reduced the unit cost of long haul bandwidth but the reduction witnessed in the leased line tariffs is not commensurate with the reduction witnessed in the cost of providing the services. The reduction in tariff for leased circuits was largely restricted to selective routes and in selective capacities. The Authority also found that a competitively priced DLC Service is fundamental to achieve a higher rate of penetration of Broadband in the country, which provides the basis for fundamentally transferring the socio-economic opportunities, particularly in rural India. Accordingly, TRAI issued an amendment to Telecommunication Tariff Order (TTO) on 21st April, 2005 reducing the ceiling tariff on domestic bandwidth prices by 3% to 70% from the existing market levels. The revised ceiling tariff is applicable for the most commonly used capacities/speed i.e. 64 kbps, 128 kbps, 256 kbps, E1 (speed of 2 Mega bits per second), DS-3 (speed of 45 Mega bits per second) and STM-1 (speed of 155 Mega bits per second).

(g) Measures to Protect the Interest of Consumers

13. With a view to curb the practice of misleading advertisements on tariff and to bring in more transparency for customers, the Authority issued a direction on 2nd May, 2005 to all access providers making it mandatory to advertise tariff in the



prescribed formats. Direction was also issued on 27.06.2005 streamlining the procedure of prescribing credit limit for post paid subscribers of cellular mobile services. The procedure, inter-alia, includes advance intimation of credit limit to subscribers, notice before disconnection and facility of making part-payment. Further, TRAI issued a direction on 8.7.2005 prescribing the time limit of 60 days for refund of Security Deposit after disconnection of service. The Authority also prescribed interest @ 10% for delayed payments of Security Deposit. In addition, vide a separate direction issued on 12.09.2005, TRAI mandated that no tariff plan shall be offered, presented, marketed or advertised in a manner that is likely to mislead the subscribers and all monthly fixed recurring charges which are compulsory for a subscriber under any given plan shall be shown under one head for easy understanding and comparison by subscribers.

(h) Recommendations on Issues Relating to Satellite Radio Services

14. The Amit Mitra Committee in its report on Private Sector FM Broadcasting had suggested that a Satellite Radio Policy should be laid down by the Government. In line with its consultative approach, TRAI brought out a consultation paper on issues relating to Satellite Radio Services on 29th December, 2004. Based on the responses received from various stakeholders on the consultation paper and during the Open House Discussions, TRAI gave its recommendations on issues relating to Satellite Radio to the Government on 27th June, 2005. The major recommendations include: (a) only one license for carriage and the licensee would be responsible to the licensor for content regulation, (b) AIR Programme code and Advertisement code should be made applicable to Satellite Radio also, (c) a common uplinking and downlinking policy should be evolved for both television and radio taking into account all aspects including security



and this common policy should determine the uplinking policy for Satellite Radio also, (d) to provide a licensing framework now itself so that there is no uncertainty in the future, etc.

(i) Recommendations on issues relating to Private Terrestrial Television Broadcast Service

15. TRAI gave its recommendations to the Government on 29th August, 2005 on issues relating to Private Terrestrial Television Broadcast service to provide for the entry of the private sector into terrestrial TV broadcasting. In respect of commercial television broadcasting, it has been recommended that for the present, this should be permitted in both analogue and digital modes. Details of frequency allocation for analogue and digital service could be finalized at a later date once the major decisions are taken. No detailed eligibility conditions have been proposed except that the same disqualifications should apply as has been decided recently for Private FM Radio. Similarly, the licensing structure should also follow the parallel of FM Radio. In view of the large number of private TV channels having national coverage, networking has been recommended.

(j) Recommendations on Digitalization of Cable Television

16. In its recommendations on Digitalization of Cable Television submitted on 14th September, 2005, TRAI suggested for a national plan for digitalization whose first phase would commence on 1st April, 2006 and end in the year 2010 to coincide with the Commonwealth Games. The recommendations provide for a voluntary approach to digitalization on behalf of both the operators as well as the consumers. Accordingly, during the first phase of 2006-2010, it is proposed that digital services should be



made available in all cities/urban agglomerations with a population of 1 million plus. The Authority has suggested that Government of India should recommend to the State Governments that the proceeds of the entertainment tax during these four years (2006 -2010) should be used for an intensive consumer education programme. This would also help State Governments in increasing their tax base. The recommendations also provide for a framework for licensing. The expansion of digital services in the country would help to provide consumers with better quality pictures as well as the ability to watch more channels. This will help in meeting the varied demands for various channels in cities with widely heterogeneous population.

(k) Ceiling Tariff Fixed for International Private Leased Circuits(IPLC)

17. IPLC is a key input for a number of economic and social activities in the country. The main users of IPLC in India are Internet Service Providers, Informational Technology (IT) and IT-Enabled Service Enterprises like Business Process Outsourcing Units and International Long Distance Operators, etc. The IPLC Leased rentals, i.e., the charges for using the services of the international leased circuits were found to be higher in India than in many countries owing to lack of effective competition in the market. The Authority found that it is essential to make this key input available to various economic and social activities at a competitive price because the market forces are not effective. The Authority also found that a competitively priced IPLC Service is fundamental to achieve a higher rate of penetration of Broadband in the country, which provides the basis for fundamentally transferring the socio-economic opportunities, particularly in Rural India. Keeping in view these factors, the Authority fixed the ceiling tariff of IPLC for the first time. The ceiling tariff of



IPLC (Half-circuit) in respect of E1, DS-3, and STM-1 capacities are Rs.13 lakhs, Rs.104 lakhs, and Rs.299 lakhs per annum, respectively. This resulted into substantial reduction in tariffs ranging from 35% to 71%. These tariffs came into effect from 29.11.2005. The prescribed ceiling tariff would be applicable for all destinations, capacities and types of cable systems used for carrying either voice or data.

(I) Monitoring of Quality of Service (QoS)

18. Since the long term periods set for achieving the Quality of Service benchmarks in TRAI's Regulation dated 5th July, 2000 (i.e., 36 months for Cellular Mobile Service and 48 months for Basic Services) were already over and various technological developments necessitated change in the QoS parameters, TRAI reviewed the quality of service parameters and a revised Regulation on Quality of Service of Basic and Cellular Mobile Services was issued on 1st July, 2005. The Regulation includes network related parameters, and also parameters on customer perception of service to be assessed through customer satisfaction survey. The Regulation also added certain new parameters. The Authority had issued a Consultation Paper on the various issues relating to quality of service on 22nd February, 2005 and held an Open House Session on 6.5.2005. Based on the suggestions received during the consultation process and its own analysis, the Authority decided that the parameters for basic service using wireless should be the same as that of cellular mobile service and this has been included in the revised Quality of Service regulation.
19. TRAI is also monitoring the performance of basic and mobile service providers through quarterly performance monitoring reports received from the service providers. Wherever the performance of operators is found below the prescribed benchmarks mentioned in the revised QoS Regulation, the



issues are taken up with the concerned service providers to address them. Apart from quarterly reports, TRAI has engaged an independent specialized agency, namely, M/s TUV South Asia Pvt. Ltd., for assessment of the quality of services (QoS) provided by the Basic and Cellular service providers for the period January, 2006 to December, 2006, and also to undertake a subjective survey of the perception of consumers on the quality of services provided by the basic and cellular service providers. The results of this survey is published on a quarterly basis for information of the public. TRAI has also notified a Regulation on Quality of Service for Dial-up and Leased Line Internet Access Service on 10th December, 2001 fixing benchmarks for Internet Dial-up Access. ISPs are required to comply with the benchmarks as per this regulation.

(m) Developments in Tariff Regulation

20. TRAI has been given the mandate to regulate tariffs for telecommunication services in the country. This function is discharged through Telecommunication Tariff Orders issued from time to time. Today, tariff for telecommunication services in India is one of the lowest in the world. The Indian consumer has immensely benefited from such lower tariffs, which has also been a major factor for explosive growth in the sector. Considering the intense competition in the sector and continuing reduction in the tariff, TRAI has moved from a Regime where tariffs were strictly regulated to one where tariffs are by and large allowed to be decided by market forces. Currently, TRAI is following 'hands off' approach in deciding tariffs except in areas where competition is perceived to be insufficient. Thus, tariffs for some key areas like rural telephony, roaming services and leased lines continue to be in the regulated regime, while all other tariffs are under forbearance.



21. One of the major developments on the tariff front that took place in the year 2005-2006 relates to review and fixation of tariff for leased circuits both at domestic level and international level. The year 2005-2006 also saw launch of innovative tariff schemes, the important among them being tariff schemes with lifetime validity. These schemes enabled the subscribers to enjoy connectivity by way of incoming calls without recurring fixed charges. In addition, tariff plan similar to 'India One' of BSNL has also been introduced by most of the Service Providers. Subscribers enrolled in this plan will get the advantage of talking anywhere in India @ Re. 1.00 per minute on payment of a fixed monthly rental.

(n) Recommendation on promotion of competition in IPLC Segment

22. On 16.12.2005, TRAI sent its recommendations on competition in IPLC segments. The main features of the recommendations are : (a) Resale for IPLC to be permitted from Feb. 2007, (b) Equal ease of access to bottleneck facilities at cable landing station, (c) International cable carriers to be allowed to terminate cable capacities on existing cable landing stations and to provide IPLC to ILD operators; such carriers to be licensed as international infrastructure providers without entry fee and revenue share.

(o) Recommendations on Transition from IPv4 to IPv6 in India

23. On 09.01.2006, TRAI gave its recommendations on issues relating to transition from IPv4 to IPv6. The main features of the recommendations are:
- Definition of IP address mentioned in ISP licence needs to be amended to enable 128 bits to be used as needed for IPv6 based addressing in place of 32 bits at present,



- Usage of IPv6 in the platforms/applications pertaining to e-governance to be mandated,
- Workshops and seminars to bring awareness about IPv6 and its benefits for service providers,
- Establishment of National Internet Registry (NIR) in the country

(p) Recommendations on Mobile Number Portability

24. On 08.03.2006, TRAI sent its recommendations on Mobile Number Portability. The acceptance of these recommendation by the Government will enable the mobile subscribers to retain their existing numbers while changing their service providers. These recommendations aim at better competition among the cellular mobile service providers and resultant improvement in quality of service.

(q) Recommendation on Next Generation Networks (NGN)

25. On 20.03.2006, TRAI gave its recommendations on Next Generation Networks. Due to technological developments, there is a trend towards unification of networks & services leading to the emergence of NGN which are predominantly IP based. NGNs enable the Service Providers to provide a wide range of services (voice, data & video) on the same platform. In addition, NGN also enables fixed mobile convergence resulting into reduced demand of mobile service spectrum. Major thrust of TRAI's recommendation is to bring out the urgent need for unified licensing regime to enable NGN networks to be utilized to their full capabilities and the need for awareness building about the various aspects of NGN.



(r) Regulation on Code of Practice for Metering and Billing Accuracy

26. TRAI had been receiving complaints on billing related matters. TRAI undertook a sample audit of the billing system of the mobile operators. The auditing of the billing systems of mobile operators revealed that while the billing systems being used by various operators are comparable to other systems being deployed by major international players, some of the processes/ procedures being followed by the mobile operators lead to customer complaints and the attendant customer dissatisfaction. The Authority, therefore, in order to bring standardization and transparency in the procedures being followed by various operators, issued a Regulation on Code of Practice for Metering and Billing Accuracy on 21.03.06. The salient features of this Regulation are :

- Before a customer is enrolled as a subscriber of any telecommunication service, he shall be provided in advance with detailed information relating to the tariff for using that service. Further, the service provider shall inform the customer in writing, within a week of activation of service, the complete details of his tariff plan.
- Where a value-added service (e.g. download of content such as a film clip or ring tone) or entry to an interactive service (such as a game) can be selected through a choice of the service user (e.g. by dialing a specific number), then the charge for the service must be provided to the customer before he commits to use the service.
- The services provided to the customer and all subsequent changes therein shall be those agreed with him in writing prior to providing the service or changing its provisions.



- Customer has reasonable time to take preventive action to avoid restriction or cessation of service.
- The Authority shall notify a panel of Agencies capable for auditing the billing system and to certify the Metering and Billing System of service providers. The service providers shall arrange audit of their Metering and Billing System in compliance with this Regulation on an annual basis through any one of the auditors as may be notified by the Authority and an audit certificate thereof shall be furnished to the Authority not later than 30th June of every year.

D. AGENDA FOR THE FUTURE

27. To fulfill its goals and objectives, the Authority proposes to take up the following issues during the next financial year:-
- (i) Spectrum issues relating to 3G,
 - (ii) Spectrum & Licensing related issues for new technologies- IMT 2000 and beyond-WIMAX/SDR,
 - (iii) Issue of Mobile Virtual Network Operators (MVNOs),
 - (iv) Study on Licensing, Interconnection and other regulatory issues related to Fixed-Mobile Convergence
 - (v) Issue of final Regulation on Intelligent Network (IN) services in a multi- operator, multi-service scenario,
 - (vi) Review of Interconnect Usage Charges (IUC)/ Access Deficit Charges (ADC),
 - (vii) Report of the Expert Group on Interconnect Exchange-cum-Inter-carrier Billing Clearing House for multi-operator, multi-service scenario,
 - (viii) Radio Frequency Radiation/Radiation Frequency Hazards,



- (ix) Study on Issues relating to Opening up of Unrestricted Internet Telephony
- (x) Study on the need to review Roaming Tariff in Mobile Services,
- (xi) Market analysis in respect of Domestic Leased Circuit (DLC) and International Private Leased Circuit (IPLC) services,
- (xii) Review of Tariff Order for Broadcasting and Cable Services,
- (xiii) Issues relating to commercial tariff for Broadcasting and Cable Television Services,
- (xiv) Interconnection issues relating to Broadcasting and Cable Services,
- (xv) Quality of Service for Broadband – fixing of Benchmarks,
- (xvi) Licensing issues relating to DTH,
- (xvii) Interconnect Usage Charges for Short Message Service,
- (xviii) Furnishing comprehensive proposals for amendments in TRAI Act and Cable Act.
- (xix) Report of the Committee for the development of National Standards for Set Top Box for Cable TV,
- (xx) E-filing of Interconnect Agreements for Broadcasting & Cable services,
- (xxi) Appointment of panel of Auditors to certify the metering and billing systems of service providers,



(xxii) Consultation Paper on Quality of Service issues pertaining to Next Generation Networks (NGN),

(xxiii) Consultation Paper on Quality of Service issues pertaining to 3G Mobile Services.

In addition to the above, other matters may also be taken up by the Authority during the next year.



PART-I

POLICIES AND PROGRAMMES

- 1.1. Review of General Environment in the Telecom Sector**
- 1.2 Review of Policies and Programmes**





1.1 REVIEW OF GENERAL ENVIRONMENT IN THE TELECOM SCETOR

1. On the lines of previous three years, the year 2005-06 also witnessed a phenomenal growth in the subscriber base for mobile services, and also increase in the subscriber base of Fixed including WLL (F) services as well as Internet services, thus building on the growth trend in subscriber base experienced since mid-1990s. The Mobile Industry crossed the 90.14 million subscriber mark at the end of the financial year in comparison to the subscriber base of 52.22 million at the end of March, 2005. It added 37.92 million subscribers in the financial year 2005-06 registering an annual growth rate of about 72.62%. The subscriber base of Fixed including WLL (F) services also grew from 46.19 million at the end of March, 2005 to 50.17 million at the end of March, 2006, registering a growth rate of about 8.62%. The Internet subscriber base in the country as of 31st March, 2006 stood at 6.93 million as compared to 5.55 million during the previous year, and registered an annual growth rate of about 25%. The tele-density at the end of March, 2006 reached to the mark of 14% as compared to 9.08% at the end of previous year recording an increase of 4.92%. This annual growth in tele-density is unprecedented and this was largely due to steep increase in mobile subscriber base and the various innovative tariff plans launched by the mobile service providers. This growth in tele-density also becomes very significant in view of the fact that overall increase in tele-density during the 50 years period from 1948 to 1998 on a much smaller population base was only 1.92%.
2. During the year, competition in telecom services driven by regulatory initiatives and technological advancements continued to push the prices down. This trend was more visible in mobile and long distance services. The competitive pressures also made the service providers to be more innovative in their tariff offerings. Products like "2 year validity prepaid coupons" and "Life Time Validity" schemes launched towards the end of the year have made telecom services more affordable and



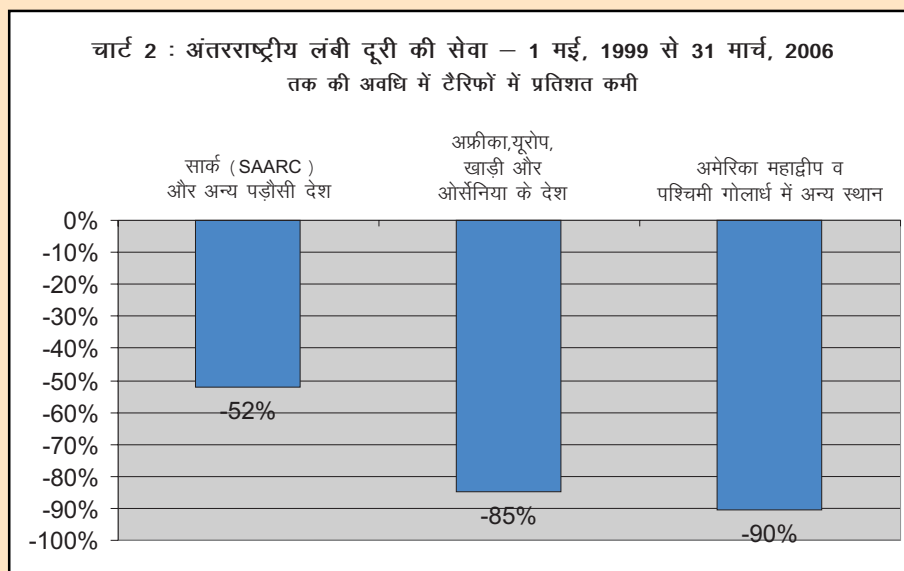
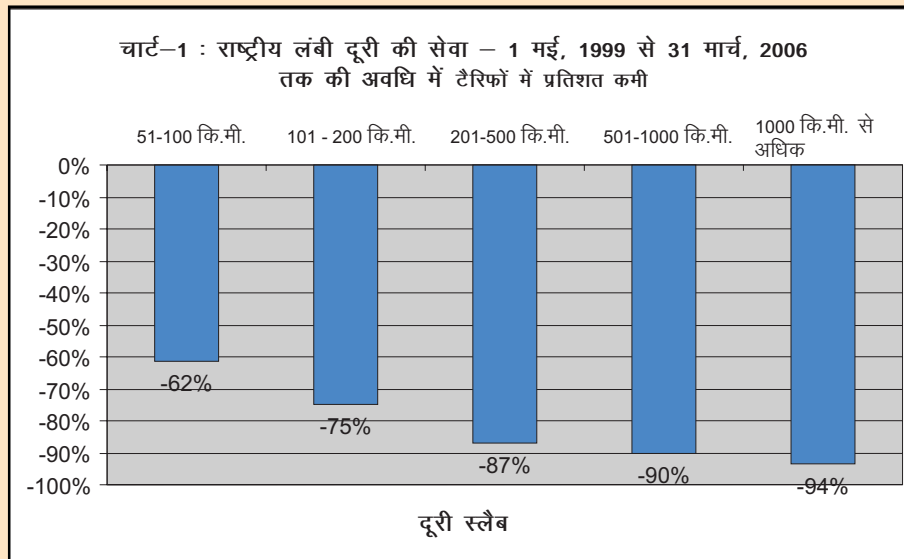
also led to large-scale subscriber acquisitions. The National Long Distance (NLD) tariff has further declined subsequent to the implementation of new ADC/IUC regime effective from 1st March 2006. Another development in the NLD segment is the launch of "One India" tariff plan by BSNL and other similar plans by other operators. This plan permits the subscribers to make long distance calls anywhere in the country at a flat rate of Rs.1/- per minute for a fixed monthly rental of Rs.299. The tariff for International Long Distance (ILD) service has also come down with the reduced ADC. The ILD tariffs of Rs.7.20 per minute (to US, UK and Canada) and Rs.9.60 per min (to South East Asia, Rest of Europe) that were initially offered as promotional tariffs have since become the standard ILD rates.

3. The ceiling tariff for International Private Leased Circuits (IPLC) of E1 Capacity (2 MBPS) has been fixed at Rs.13 lakhs per year in comparison to the prevailing listed price of Rs.20.2 lakhs, indicating a reduction of about 35%. The ceiling tariff for higher capacities, i.e., DS3 and STM-1 streams for IPLC has been fixed at Rs. 104 lakhs per year and Rs. 299 lakhs per year, respectively, in comparison to prevailing listed price of Rs.361 lakhs and Rs.1000 lakhs, respectively, indicating reduction of 71% and 70% in their respective tariff.

4. The ceiling tariffs for Domestic Leased Circuit (DLC) for different capacities were revised during the year indicating a reduction by 3 to 70% in comparison to the existing market rates. The key users of the service in India are Internet Service Providers, Informational Technology (IT) and IT-Enabled Service Enterprises like Business Process Outsourcing (BPO) Units, Telecommunication Service Providers, corporate enterprises, etc. A competitively priced DLC Service, which is fundamental for achieving a higher rate of penetration of Broadband in the country, will go a long way in transferring the socio-economic opportunities in the country particularly in rural areas.



5. The reduction in tariffs for Long Distance Services can be seen in Charts 1 and 2 below:



6. Today tariff for telecommunication services in India is one of the lowest in the world. The Indian consumer has immensely benefited from such lower tariffs which has also been a major factor for explosive growth in the sector. Considering intense competition in various segments of telecommunications sector and continuous decline in the tariff, TRAI has moved to a regime of tariff deregulation in

a gradual manner. Currently, TRAI is following 'Hands Off' approach in deciding tariffs except in areas where competition is found to be insufficient. As of March 2006, tariff for Cellular Services (except for roaming services), Basic Services (except for rural telephony) and NLD/ILD Services stand forborne and tariff for rural telephony, roaming services and leased lines continue to be in the regulated regime. With a view to protect the interest of subscribers on tariff related matters, the Authority has taken several initiatives by amending the Telecommunications Tariff Order (TTO) 1999 wherever necessary.

7. The total number of licenses issued for the different services in various circles and the actual services started by 31st March, 2006 (other than BSNL and MTNL) has been indicated in Table 1.1 below.

Table 1.1: Total Number of Licenses issued for Service Areas and Number of Licenses for which service started by 31st March, 2006 (other than BSNL & MTNL)



S.N.	Name of service	Private Sector Licensees	Service started
1.	UASLs	75	73
2.	NLD Service	4	4
3.	ILD Service	5	4
4.	Cellular	38	38
5.	VSAT Service	9	9
6.	PMRTS	12	12
7.	Radio Paging	05*	04
8.	GMPCS	-	-

Source : DOT / Service Providers

* One Radio Paging licensee is currently not providing service as its case is under arbitration.

1.1.1 Basic Services

8. As on 31st March 2006, apart from BSNL providing service throughout the country, except Delhi and Mumbai where MTNL provides service, the Basic Services sector has five licensed private operators covering the following telecom circles:

Reliance Infocomm Ltd. - 20 circles (Delhi, Himachal Pradesh, Punjab, Haryana, U.P (West), U.P.(East), Rajasthan, Gujarat, Madhya Pradesh including Chattisgarh, Maharashtra including Goa, Mumbai, Karnataka, Andhra Pradesh, Tamil Nadu, Chennai, Kolkata, Kerala, West Bengal including Andaman and Nicobar, Bihar including Jharkhand and Orissa)

Tata Teleservices Ltd. - 20 Circles (Maharashtra including Goa, Mumbai, Andhra Pradesh, Tamil Nadu, Chennai, Karnataka, Delhi, Bihar, Rajasthan, Orissa, Gujarat, Punjab, Haryana, Himanchal Pradesh, Kerala, Madhya Pradesh, UP (East), UP(West) including Uttranchal, West Bengal and Kolkata).

Bharti Televentures Ltd. - 16 Circles (Andhra Pradesh, Madhya Pradesh, Delhi, Haryana, Tamil Nadu, Chennai, Karnataka, Kerala, Gujarat, Punjab, Maharashtra, Mumbai, UP (East) , UP(West), West Bengal and Kolkata)



Shyam Telelink Ltd. -

Rajasthan Circle

HFCL Infotel Ltd. -

Punjab Circle

All the above five private operators had migrated to Unified Access Service Regime during the year 2003-04.

9. The subscriber base for basic services [Fixed & WLL(F)] recorded an annual growth rate of 8.62% in 2005-06 over the previous year. The Operator-wise and service area wise details of subscribers base as on 31st March, 2006 is furnished in Table 1.2 below.

Table 1.2: Subscriber Base of Basic Services as on 31st March, 2006

Name of the Circle/ Service Area	Service Provider	31st March 2005			31st March 2006			Annual Growth Rate %
		Fixed	WLL(F)	Total	Fixed	WLL(F)	Total	
Andaman & Nicobar	BSNL	37960	520	38480	38322	586	38908	1.11
Andhra Pradesh	BSNL	3177508	34267	3211775	3034240	95265	3129505	-2.56
	TTL	114182	278698	392880	108982	403718	512700	30.50
	Reliance	4268	56648	60916	14525	187490	202015	231.63
Bharti	0	0	16634	0	16634	-		
Assam	BSNL	511290	22152	533442	519806	37790	557596	4.53
Bihar	BSNL	950957	90868	1041825	1036353	123980	1160333	11.38
	Reliance	35	17210	17245	226	35972	36198	109.90
	TTL	0	16294	16294	60	49437	49497	203.77
Gujarat	BSNL	2654207	45882	2700089	2544226	98192	2642418	-2.14
	Reliance	13972	104412	118384	40142	195097	235239	98.71
	Bharti	102	0	102	4533	0	4533	-
	TTL	26397	259605	286002	25584	363906	389490	36.18
Haryana	BSNL	1091297	55957	1147254	1098074	67572	1165646	1.60
	Bharti	114383	0	114383	20600	0	20600	-81.99
	Reliance	197	32599	32796	377	70715	71092	116.77
	TTL	0	12677	12677	0	30829	30829	143.19
Himachal Pradesh	BSNL	480610	11829	492439	478746	38706	517452	5.08
	Reliance	0	1054	1054	1	3850	3851	265.37
	TTL	0	2304	2304	0	3739	3739	62.28
Jammu & Kashmir	BSNL	300154	7412	307566	302520	35534	338054	9.91
Jharkhand	BSNL	455377	40085	495462	470241	46157	516398	4.23
Karnataka	BSNL	2700754	65508	2766262	2634402	126201	2760603	-0.20
	Bharti	139842	0	139842	222759	0	222759	59.29
	TTL	6822	245767	252589	31353	347623	378976	50.04
	Reliance	9491	47657	57148	29644	159439	189083	230.87
Kerala	BSNL	3424897	88691	3513588	3568697	221443	3790140	7.87
	Reliance	2461	124472	126933	7313	300412	307725	142.43
	TTL	0	51422	51422	0	130662	130662	154.10
	Bharti	0	0	0	9369	0	9369	-

Name of the Circle/ Service Area	Service Provider	31st March 2005			31st March 2006			Annual Growth Rate %
		Fixed	WLL(F)	Total	Fixed	WLL(F)	Total	
Madhya Pradesh (including Chattisgarh)	BSNL	1603184	87098	1690282	1605786	132930	1738716	2.87
	Bharti	231923	25794	257717	272402	22511	294913	14.43
	Reliance	1407	30276	31683	5797	77334	83131	162.38
	TTL	0	20463	20463	0	83512	83512	308.11
Maharashtra excluding Mumbai	BSNL	3921039	127034	4048073	3933947	186419	4120366	1.79
Mumbai	MTNL	2310302	45342	2355644	2211418	44684	2256102	-4.23
Maharashtra including Mumbai North East-I	TTL	222390	526179	748569	228791	814156	1042947	39.33
	Bharti	215	0	215	19075	0	19075	8772.09
	Reliance	14185	235675	249860	47029	502756	549785	120.04
	BSNL	204908	11359	216267	207958	14165	222123	2.71
North East-II	BSNL	154095	13168	167263	153302	14014	167316	0.03
Orissa	BSNL	767953	63910	831863	784797	89097	873894	5.05
	Reliance	115	18305	18420	549	45402	45951	149.46
	TTL	0	2538	2538	0	19614	19614	672.81
Punjab	BSNL	1944413	72572	2016985	1812682	86453	1899135	-5.84
	HFCL	139687	54540	194227	176294	79984	256278	31.95
	Reliance	4368	88635	93003	9586	146601	156187	67.94
	Bharti	121	0	121	3819	0	3819	-
	TTL	0	40123	40123	0	101757	101757	153.61
Rajasthan	BSNL	1774429	57077	1831506	1745491	171854	1917345	4.69
	STL	130058	27015	157073	143502	30391	173893	10.71
	Reliance	832	46788	47620	737	118225	118962	149.82
	TTL	0	19975	19975	0	52194	52194	161.30
Tamil Nadu	BSNL	2879569	52543	2932112	2757317	141199	2898516	-1.15
	TTL	97	128770	128867	534	202851	203385.0744	57.83
	Reliance	1718	42832	44550	8599	128624	137223	208.02
	Bharti	59878	0	59878	27259	0	27259	-54.48
Uttranchal	BSNL	365287	21441	386728	366325	34927	401252	3.76
Uttar Pradesh (East)	BSNL	1647292	89930	1737222	1585744	144058	1729802	-0.43
	Reliance	2364	51677	54041	7787	137599	145386	169.03
	TTL	0	12519	12519	0	44860	44860	258.34
	Bharti	0	0	0	186825	0	186825	-
Uttar Pradesh (West)	BSNL	1234241	43032	1277273	1133208	61309	1194517	-6.48
	Reliance	137	58597	58734	332	156755	157087	167.45
	Bharti	9242	0	9242	8071	0	8071	-12.67
	TTL	0	14003	14003	0	48911	48911	249.29
West Bengal	BSNL	1235317	60378	1295695	1243856	88227	1332083	2.81
	Reliance	45	14844	14889	59	36826	36885	147.73
	TTL	0	1067	1067	0	33317	33317	-
Kolkata	BSNL	1357265	5852	1363117	1357594	6905	1364499	0.10
	Reliance	6900	78897	85797	21187	127065	148252	72.79
	Bharti	10	0	10	5131	0	5131	-
	TTL	0	37910	37910	120	191940	192060	406.62
Chennai	BSNL	985479	7478	992957	1009258	22040	1031298	3.86
	TTL	843	168463	169306	6403	163470	169872.9256	0.33
	Reliance	3511	24803	28314	12731	56275	69006	143.72
	Bharti	126329	0	126329	107818	0	107818	-14.65
Delhi	Bharti	149169	0	149169	423120	0	423120	183.65
	MTNL	1704871	6404	1711275	1609834	4448	1614282	-5.67
	TTL	8680	358286	366966	14654	520955	535609	45.96
	Reliance	7881	161531	169412	27899	273224	301123	77.75
Total		41428912	4769113	46198025	41542356	8634153	50176509	8.62

Source: BSNL / MTNL / Private Service Operators



10. The above Table shows that the private BSOs recorded an annual increase of 92.07% in the subscriber base during the year while BSNL has achieved marginal increase and MTNL's subscriber base has decreased in comparison to the previous year. As of 31st March 2006, the incumbents BSNL and MTNL had 74% and 8% market share, respectively, in terms of subscriber base, while all the five private Basic Service Operators together had 18% of the total subscriber base. During the previous year, at the end of March, 2005, the market share of the BSNL and MTNL was 80% and 9% respectively, while the share of all the five private BSOs taken together was only 11%. Thus, the market share in terms of subscriber base of the incumbents BSNL and MTNL has decreased, while the market share of private BSOs has significantly increased.

11. Of the 39.78 lakhs Direct Exchange Lines (DELs) added by all operators in 2005-06, BSNL accounted for 4.72 lakh DELs (11.87%) and the share of private BSOs was 37.03 lakh DELs (93.07%). Whereas, MTNL registered a shortfall of 1.97 lakh DELs (-4.93%) during the year 2005-06. Thus, the private operators have contributed most of the new additions in DELs during this year, while, till March, 2003, most of the new additions to DELs were used to be provided by BSNL.

12. As on 31st March, 2005, the total equipped switching capacity was 14.40 crore which included Fixed, WLL(F) and WLL(M). During the year 2005-06, 1.46 crore equipped switching capacity was added taking the total capacity as on 31st March, 2006 to 15.86 crore. Table 1.3 gives the details of equipped switching capacity, net capacity addition etc. in respect of Basic Service Providers.



Table 1.3: Details of Equipped Switching Capacity, Net Capacity Addition, etc. in respect of Basic Service Providers as on 31st March, 2006

Name of the Circle/Service Area	Service Provider	Equipped Capacity as on		Capacity added during the year
		31 st March '05	31 st March '06	
Andaman & Nicobar	BSNL	55672	57274	1602
Andhra Pradesh	BSNL	4128443	3986629	-141814
	TTL	1500000	1392000	-108000
	Reliance	6833184	6840352	7168
	Bharti	0	26000	26000
Assam	BSNL	676801	702372	25571
Bihar	BSNL	1299698	1330708	31010
	Reliance	1765088	3869696	2104608
Gujarat	BSNL	3718144	3701831	-16313
	Reliance	5981104	5980080	-1024
	Bharti	0	6480	6480
	TTL	788293	1292720	504427
Haryana	BSNL	1538690	1559976	21286
	Bharti	124854	25642	-99212
	Reliance	907632	1782560	874928
	TTL	0	650000	650000
Himachal Pradesh	BSNL	639462	644066	4604
	Reliance	237544	238056	512
	TTL	0	90000	90000
Jammu & Kashmir	BSNL	400128	413244	13116
Jharkhand	BSNL	627152	652496	25344
Karnataka	BSNL	3460272	3457013	-3259
	Bharti	186000	228800	42800
	TTL	831500	96800	-734700
	Reliance	5068096	5359888	291792
Kerala	BSNL	4086958	4167630	80672
	Reliance	4783472	4785776	2304
	Bharti	0	20000	20000
	TTL	0	25500	25500
Madhya Pradesh (including Chattisgarh)	BSNL	2110405	2124119	13714
	Bharti	343742	397214	53472
	Reliance	3883008	3884544	1536
	TTL	0	250000	250000
Maharashtra excluding Mumbai	BSNL	5116426	5199172	82746
	Bharti	0	8897	8897
Mumbai	MTNL	3657770	4217143	559373
	Bharti	0	35000	35000
Maharashtra including Mumbai	TTL	1768000	2252000	484000
	Reliance	12522208	13980144	1457936
North East-I	BSNL	272652	280736	8084
North East-II	BSNL	203584	207604	4020



Name of the Circle/Service Area	Service Provider	Equipped Capacity as on		Capacity added during the year
		31 st March '05	31 st March 06	
Orissa	BSNL	948996	967224	18228
	Reliance	889712	892272	2560
	TTL	0	64000	64000
Punjab	BSNL	2763009	2769341	6332
	HFCL	317660	507666	190006
	Reliance	4763760	3895552	-868208
	Bharti	496	61728	61232
	TTL	0	1540000	1540000
Rajasthan	BSNL	2293536	2279764	-13772
	STL	290000	350000	60000
	Reliance	1770464	4451744	2681280
	TTL	0	391880	391880
Tamil Nadu	BSNL	3598336	3478812	-119524
	TTL	270720	370096	99376
	Bharti	155114	164038	8924
	Reliance	5914352	4474848	-1439504
Uttranchal	BSNL	494304	500476	6172
Uttar Pradesh (East)	BSNL	2310156	2324647	14491
	Reliance	4747632	6488912	1741280
	Bharti	0	6448	6448
	TTL	0	233000	233000
Uttar Pradesh (West)	BSNL	1751380	1747342	-4038
	Reliance	3883008	4754544	871536
	Bharti	1138	9360	8222
	TTL	0	233000	233000
West Bengal	BSNL	1635101	1681655	46554
	Reliance	870000	1450000	580000
	TTL	0	143000	143000
Kolkata	BSNL	1654573	1745585	91012
	Reliance	4185552	3904768	-280784
	Bharti	0	60000	60000
	TTL	0	33391	33391
Chennai	BSNL	1347079	1437937	90858
	Reliance	4796016	3342944	-1453072
	Bharti	0	275932	275932
	TTL	443368	443368	0
Delhi	Bharti	259549	499834	240285
	MTNL	3737809	4419689	681880
	TTL	704976	1472513	767537
	Reliance	7704976	8577280	872304
Total		144018754	158664752	14645998

Source: BSNL/MTNL /Private Service Operators

13. The tele-density for Basic Services including WLL (F) at the end of March, 2006 was about 5% as compared to the tele-density of 4.61% at the end of March, 2005. Till the end of the preceding year, BSNL and MTNL together had a waiting list of 1.59 million telephones. Even with the entry of private operators in basic service, the waiting list with BSNL and MTNL has only marginally decreased from 1.59 million telephones at the end of March, 2005 to 1.22 million telephones at the end of March, 2006. Data on the Direct Exchange Lines and Waiting List during the period 1989-90 to 2005-06 for BSNL and MTNL combined is shown in Table 1.4 below.

Table 1.4: Direct Exchange Lines and Waiting List during 1989-90 to 2005-06 for BSNL and MTNL (combined)

Year (April – March)	Direct Exchange Lines (DELS) ('000)	DELS added annually ('000)	Telephone Waiting List ('000)
1989-1990	4,589.5	423.0	1,713.40
1990-1991	5,074.7	485.2	1,961.00
1991-1992	5,809.9	735.2	2,287.00
1992-1993	6,796.7	986.8	2,845.90
1993-1994	8,025.6	1,228.9	2,496.80
1994-1995	9,795.3	1,769.7	2,152.90
1995-1996	11,978.4	2,183.1	2,277.20
1996-1997	14,542.6	2,564.2	2,887.20
1997-1998	17,801.7	3,259.1	2,705.70
1998-1999	21,593.7	3,792.0	1,983.03
1999-2000	26,511.3	4,917.6	3,680.70
2000-2001	32,436.1	5,924.8	2,947.06
2001-2002	37,848.2	5,412.0	1,685.87
2002-2003	40,060.5	2,212.3	1,810.07
2003-2004	40,566.5	506.0	1,798.96
2004-2005	41,102.4	535.9	1,588.89
2005-2006	41,378.3	275.9	1,218.93

Source: DoT/Reports of BSNL & MTNL

14. Amongst private operators, only M/s Bharti Televentures Ltd. had a wait list of 6,532 telephones by the end of March, 2006. The highest wait list in a circle was with M/s Bharti



(Karnataka) with a wait list of 1,319 telephones. Operator-wise details of total DELs installed and waiting list as on 31st March, 2006 are given in the Table 1.5 below.

Table 1.5: Total DELs installed by Basic Service Operators and the total Waiting List as on 31st March, 2006

Name of the Licensee	Circle	DELs installed	Telephone Waiting List
BSNL	All India (except Delhi & Mumbai)	3,75,07,915	12,14,045
MTNL	Mumbai	22,56,102	2,869
MTNL	Delhi	16,14,282	2,016
HFCL	Punjab	2,56,278	0
Bharti Televentures Ltd.	A.P., Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, M.P., Maharashtra, Mumbai, Punjab, Tamil Nadu, Chennai, UP(East), UP(W)	13,49,926	6,532
Shyam Telelink	Rajasthan	1,73,893	0
Reliance	AP, Bihar, Delhi, Gujarat, Haryana, Himanchal Pradesh, Karnataka, Kerala, M.P., Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu, Chennai, UP(E), UP(W), West Bengal & Kolkata	29,94,181	0
Tata Teleservices	Maharashtra, Mumbai, A.P., Bihar, Kolkata, Chennai, Delhi, Gujarat, Haryana, Himanchal Pradesh, Karnataka, Kerala, M.P., Orissa, Punjab, Rajasthan, Tamil Nadu, UP(E),UP(W) West Bengal	40,23,932	0
	Total	5,01,76,509	12,25,462

Source: BSNL/MTNL/Private Service Providers

15. The number of Public Call Offices (PCOs) in the country as on 31st March, 2006 stood at 4.19 million. During the year, 14.28 lakhs PCOs were added, recording an annual growth rate of 51.53%. Operator wise and circle-wise details are given below in Table 1.6.

Table 1.6: Operator-wise and Circle-wise details of Public Call Offices as on 31st March, 2006 vis-à-vis March, 2005

Name of the Circle/ Service Area	Service Provider	PCO as on		Net PCO added in the year	Percentage Growth for the year
		31 st March '05	31 st March '06		
Andaman & Nicobar	BSNL Reliance	1010 0	1154 0	144 0	14.26 -
Andhra Pradesh	BSNL TTL Bharti Reliance	229713 17000 0 30954	266790 107682 3536 123154	37077 90682 3536 92200	16.14 533.42 - 297.86
Assam	BSNL	21624	24373	2749	12.71
Bihar	BSNL TTL Reliance	54670 0 95	62209 11886 6938	7539 11886 6843	13.79 - 7203.16
Gujarat	BSNL Reliance Bharti TTL	144170 22326 0 19533	147526 61781 262 71703	3356 39455 262 52170	2.33 176.72 - 267.09
Haryana	BSNL Bharti Reliance TTL	35221 10351 9277 0	35135 2728 22438 0	-86 -7623 13161 0	-0.24 -73.65 141.87 -
Himachal Pradesh	BSNL Reliance TTL	9937 560 0	11254 1899 0	1317 1339 0	13.25 239.11 -
Jammu & Kashmir	BSNL	15791	16368	577	3.65
Jharkhand	BSNL	16044	22888	6844	42.66
Karnataka	BSNL Bharti TTL Reliance	229739 17619 9186 13227	258696 36108 63252 69939	28957 18489 54066 56712	12.60 104.94 588.57 428.76
Kerala	BSNL Reliance Bharti TTL	93453 21833 0 0	114353 72038 2333 0	20900 50205 2333 0	22.36 229.95 - -
Madhya Pradesh (including Chattisgarh)	BSNL Bharti Reliance TTL	60980 44904 6120 0	62849 54222 22631 15692	1869 9318 16511 15692	3.06 20.75 269.79 -
Maharashtra excluding Mumbai	BSNL Bharti	279230 0	297624 184	18394 184	6.59 -
Mumbai	MTNL Bharti	177946 0	181913 291	3967 291	2.23 -
Maharashtra including Mumbai	TTL Reliance	75000 51654	216337 186391	141337 134737	188.45 260.85
North East-I	BSNL	5024	5917	893	17.77



Name of the Circle/ Service Area	Service Provider	PCO as on		Net PCO added in the year	Percentage Growth for the year
		31 st March '05	31 st March 06		
North East-II	BSNL	4971	6785	1814	36.49
Orissa	BSNL	31733	30739	-994	-3.13
	Reliance	6537	17883	11346	173.57
	TTL	0	4672	4672	-
Punjab	BSNL	43973	42066	-1907	-4.34
	HFCL	31202	42873	11671	37.40
	Reliance	21132	35845	14713	69.62
	Bharti	0	1946	1946	-
	TTL	0	0	0	-
Rajasthan	BSNL	66535	68731	2196	3.30
	STL	26064	26827	763	2.93
	Reliance	11538	37564	26026	225.57
	TTL	0	0	0	-
Tamil Nadu	BSNL	171036	205909	34873	20.39
	TTL	7644	45929	38285	500.85
	Bharti	37369	37024	-345	-0.92
	Reliance	18639	67137	48498	260.20
Uttranchal	BSNL	13133	14512	1379	10.50
Uttar Pradesh (East)	BSNL	95174	101957	6783	7.13
	Reliance	15862	47910	32048	202.04
	Bharti	0	1201	1201	-
	TTL	0	6191	6191	-
Uttar Pradesh (West)	BSNL	59949	58061	-1888	-3.15
	Reliance	11199	45418	34219	305.55
	Bharti	626	740	114	18.21
	TTL	0	5078	5078	-
West Bengal	BSNL	42225	57137	14912	35.32
	Reliance	7968	19048	11080	139.06
	TTL	0	9389	9389	-
Kolkata	BSNL	66659	65219	-1440	-2.16
	Reliance	14462	22138	7676	53.08
	Bharti	0	426	426	-
	TTL	0	0	0	-
Chennai	BSNL	79274	85922	6648	8.39
	Reliance	6332	19272	12940	204.36
	Bharti	0	28887	28887	-
	TTL	3515	19979	16464	468.39
Delhi	Bharti	12479	36033	23554	188.75
	MTNL	101830	97128	-4702	-4.62
	TTL	4938	57672	52734	1067.92
	Reliance	32943	65435	32492	98.63
	Total	2771132	4199157	1428025	51.53

Source: BSNL/MTNL and Private Operators

16. Of the 6,07,491 villages in the country, there are Village Public Telephones (VPTs) in only 5,48,843 villages as on 31st March, 2006, leaving a balance of 58,648 villages to be covered. In

percentage terms, 90.3% villages have been covered by VPTs and 9.7% villages are yet to be covered. Table 1.7 below shows the operator-wise and circle-wise status of VPTs as on 31st March, 2006.

Table 1.7: Operator-wise and Circle-wise status of VPTs as on 31st March, 2006

Name of the Circle/ Service Area	Service Provider	Villages having VPTs as on		Achievement during the year
		31 st March '05	31 st March '06	
Andaman & Nicobar	BSNL	198	198	0
	Reliance	0	0	0
Andhra Pradesh	BSNL	23,599	23,826	227
	TTL	1,343	1,358	15
	Bharti	0	0	0
	Reliance	0	0	0
Assam	BSNL	21,335	23,094	1,759
Bihar	BSNL	38,475	38,475	0
	Reliance	0	0	0
Gujarat	BSNL	12,344	13,343	999
	Reliance	4,115	4,115	0
	Bharti	0	0	0
	TTL	0	0	0
Haryana	BSNL	6,811	6,811	0
	Bharti	0	0	0
	Reliance	0	0	0
	TTL	0	0	0
Himachal Pradesh	BSNL	16,587	16,814	227
	Reliance	0	0	0
	TTL	0	0	0
Jammu & Kashmir	BSNL	4,987	5,095	108
Jharkhand	BSNL	26,968	26,980	12
Karnataka	BSNL	27,066	27,066	0
	Bharti	0	0	0
	Reliance	0	0	0
	TTL	0	0	0
Kerala	BSNL	1,468	1,468	0
	Reliance	0	0	0
	Bharti	0	0	0
	TTL	0	0	0
Madhya Pradesh (Including Chattisgarh)	BSNL	54,982	61,454	6,472
	Bharti	0	243	243
	Reliance	0	0	0
	TTL	0	0	0
Maharashtra excluding Mumbai	BSNL	32,978	34,371	1,393
	Bharti	0	0	0
	TTL	2,254	2,422	168



Name of the Circle/ Service Area	Service Provider	Villages having VPTs as on		Achivement during the year
		31 st March '05	31 st March 06	
Mumbai	MTNL	0	0	0
	Bharti	0	0	0
	TTL	399	226	-173
North East-I	BSNL	4,356	4,365	9
North East-II	BSNL	3,520	3,559	39
Orissa	BSNL	40,753	40,753	0
	Reliance	0	0	0
	TTL	0	0	0
Punjab	BSNL	12,687	12,687	0
	HFCL	694	615	-79
	Reliance	0	0	0
	Bharti	0	0	0
	TTL	0	0	0
Rajasthan	BSNL	24,931	29,771	4,840
	STL	3,010	3,010	0
	Reliance	0	0	0
	TTL	0	0	0
Tamil Nadu	BSNL	17,899	17,899	0
	TTL	0	0	0
	Bharti	0	0	0
	Reliance	0	0	0
Uttranchal	BSNL	11,840	12,088	248
Uttar Pradesh (East)	BSNL	76,006	76,006	0
	Reliance	0	0	0
	Bharti	0	0	0
	TTL	0	0	0
Uttar Pradesh (West)	BSNL	21,268	21,268	0
	Reliance	0	0	0
	Bharti	0	0	0
	TTL	0	0	0
West Bengal	BSNL	37,306	37,306	0
	Reliance	0	0	0
	Bharti	0	0	0
	TTL	0	0	0
Kolkata	BSNL	437	427	-10
	Reliance	0	0	0
	Bharti	0	0	0
	TTL	0	0	0
Chennai	BSNL	0	1730	1730
	Reliance	0	0	0
	Bharti	0	0	0
	TTL	0	0	0
Delhi	Bharti	0	0	0
	MTNL	0	0	0
	TTL	0	0	0
	Reliance	0	0	0
	Total	5,30,616	5,48,843	18,227

Source: BSNL/MTNL and Private Operators

17. The above table shows that 18,227 VPTs were added during the year 2005-06. Almost all the additions were done by BSNL in Andhra Pradesh, Assam, Gujarat, H.P., Jammu & Kashmir, Jharkhand, Madhya Pradesh, Maharashtra, NE-I, NE-II, Rajasthan, Uttaranchal and Chennai. The private BSO's contribution in the setting up of VPTs was negligible.

1.1.2 Mobile (GSM and CDMA) Services

18. The Mobile Industry crossed the 90.14 million-subscriber mark (GSM 69.19 million & CDMA 20.95 million) at the end of the financial year. It added 37.92 million subscribers in the financial year 2005-06 with a remarkable growth of around 72.62%. The subscriber base of Mobile (GSM and CDMA) Services from March, 2002 to March, 2006 is given below in Table 1.8.

Table 1.8: Subscriber Base (in Million) of Mobile (GSM and CDMA) Services from March, 2002 to March, 2006

Service Providers	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	% age growth over FY 2005
Bharti	1.35	3.07	6.50	10.98	19.58	78.32%
Reliance	0.38	0.54	7.26	10.45	17.31	65.65%
BSNL	0.04	2.29	5.53	9.90	17.65	78.28%
Hutch	1.27	2.16	5.15	7.80	15.36	96.92%
Idea	0.81	1.28	2.73	5.07	7.37	45.36%
Escotel	0.50	0.59	0.99			
BPL Group	0.90	1.13	1.88	2.58	1.34	-48.06%*
Aircel	0.54	0.73	1.29	1.76	2.61	48.30%
Spice	0.47	0.64	1.21	1.44	1.93	34.03%
Tata/ Hughes	0.05	0.16	0.63	1.09	4.85	344.95%
MTNL	0.22	0.35	0.46	1.08	2.05	89.81%
HFCL	0.01	0.03	0.03	0.05	0.06	20.00%
Shyam	0.004	0.03	0.03	0.03	0.03	0%
Total	6.54	13.00	33.69	52.22	90.14	72.62%

* Maharashtra, Tamilnadu & Kerala service areas of BPL Group have been taken over by M/s Hutch

Source: Service Providers



19. The subscriber base & market share of different mobile operators as on March 2006 is given in the Table 1.9 below.

Table 1.9 : Market Share of different Mobile Operators in terms of subscriber base as on March, 2006

S.No.	Mobile Group	No. of Subscribers (in Million)	Market Share as on March 2006
1	Bharti	19.58	21.72%
2	BSNL	17.65	19.58%
3	Reliance	17.31	19.21%
4	Hutch	15.36	17.04%
5	Idea	7.37	8.18%
6	BPL Group	1.34	1.49%
7	Aircel	2.61	2.90%
8	Spice	1.93	2.14%
9	Tata Teleservice	4.85	5.38%
10	MTNL	2.05	2.27%
11	HFCL	0.06	0.07%
12	Shyam	0.03	0.03%
	Total	90.14	

Source: Service Providers

20. At the end of March, 2006, following operators were providing mobile service (GSM & CDMA) in the service areas mentioned in Table 1.10 below.

Table 1.10 : List of Cellular (GSM & CDMA) Service providers in operation as on 31st March, 2006

Sl. No.	Service Provider	Services Started	No. of Circles
1	BSNL	Chennai, Kolkata, Maharashtra, Gujarat, Andhra Pradesh, Karnataka, Tamil Nadu, Kerala, Punjab, Haryana, UP-W, UP-E, Rajasthan, Madhya Pradesh, West Bengal, Himchal Pradesh, Bihar, Orissa, Assam, North East, Jammu & Kashmir	21
2	Bharti	All India	23
3	Reliance	All India	23

Sl. No.	Service Provider	Services Started	No. of Circles
4	Tata Teleservices	Delhi, Mumbai, Chennai, Kolkata, Maharashtra, Gujarat, Andhra Pradesh, Karnataka, Tamil Nadu, Kerala, Punjab, Haryana, UP-W, UP-E, Rajasthan, Madhya Pradesh, West Bengal, Himchal Pradesh, Bihar, Orissa	20
5	Hutch	Delhi, Mumbai, Chennai, Kolkata, Maharashtra, Gujarat, Andhra Pradesh, Karnataka, Tamil Nadu, Kerala, Punjab, Haryana, UP-W, UP-E, Rajasthan, West Bengal	16
6	IDEA	Delhi, Maharashtra, Gujarat, Andhra Pradesh, Kerala, Haryana, UP-W, Madhya Pradesh	8
7	BPL	Mumbai	1
8	Aircel*	Chennai, Tamil Nadu, West Bengal, Orissa, Assam, North East, Jammu & Kashmir	7
9	MTNL	Delhi, Mumbai	2
10	Spice Communications	Karnataka, Punjab	2
11	HFCL	Punjab	1
12	Shyam Telelink	Rajasthan	1
13	EscortsTelecom- munications	UP-E, Rajasthan, Himchal Pradesh	3

Source: Service Providers

* M/s Aircel acquired license for offering services in 9 service areas. However, services are yet to be started in Himanchal Pradesh and Bihar.

21. Service-area wise list of Mobile Service Providers is mentioned in the Table 1.11 below.

Table 1.11: Service-area wise List of Mobile Service Providers (GSM and CDMA) as on March, 2006

		Circle	Access service provider
Metros	1	Delhi	Bharti
			Hutch
			MTNL
			Idea
			Reliance Infocomm
			Tata Teleservices



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



		Circle	Access service provider
	8	KTK	Bharti
			Spice
			BSNL
			Hutch
			Reliance Infocomm
			Tata Teleservices
	9	TN	BPL (Hutch)
			Aircel
			BSNL
			Bharti
			Reliance Infocomm
			Tata Teleservices
B Circle	10	Kerala	Idea Communications Ltd
			BPL (Hutch)
			BSNL
			Bharti
			Tata Teleservices
			Reliance Infocomm
	11	Punjab	Spice
			Bharti
			BSNL
			Hutchison
			Tata Teleservices
			Reliance Infocomm
			HFCL Infocom
	12	Haryana	Idea Communications Ltd
			Hutch (ADIL)
			BSNL
			Bharti
			Tata Teleservices
			Reliance Infocomm
	13	UP-W	Idea Communications Ltd
			BSNL
			Bharti
			Tata Teleservices
			Reliance Infocomm
			Hutchison South



		Circle	Access service provider
	14	UP-E	Hutch(ADIL)
			BSNL
			Escorts Telecommunications
			Bharti
			Tata Teleservices
			Reliance Infocomm
	15	Raj	Hutch(ADIL)
			Bharti Hexacom Ltd
			BSNL
			Escorts Telecommunications
			Reliance Infocomm
			Tata Teleservices
			Shyam Telelink
	16	MP	Idea
			Reliance Telecom
			BSNL
			Tata Teleservices
			Reliance Infocomm
			Bharti Cellular
	17	WB&A&N	Reliance Telecom
			BSNL
			Bharti Cellular
			Tata Teleservices
			Hutchison South
			Dishnet Wireless Ltd
			Reliance Infocomm
C Circle	18	HP	Bharti
			Reliance Telecom
			BSNL
			Escorts Telecommunications
			Tata Teleservices
			Reliance Incomm
	19	Bihar	Dishnet Wireless Ltd*
			Reliance Telecom
			Reliance Infocomm
			BSNL
			Tata Teleservices
			Dishnet Wireless Ltd*
			Bharti Cellular Ltd



		Circle	Access service provider
	20	Orissa	Reliance Telecom
			Reliance Infocomm
			BSNL
			Bharti
			Tata Teleservices
			Dishnet Wireless Ltd
	21	Assam	Reliance Telecom
			BSNL
			Dishnet Wireless Ltd
			Bharti
	22	NE	Reliance Telecom
			BSNL
			Bharti Hexacom Ltd.
			Dishnet Wireless Ltd
	23	J&K	BSNL
			Bharti
			Reliance Infocomm
			Dishnet Wireless Ltd

Source: Service Providers

* Services not started

22. The number of mobile subscribers (GSM and CDMA) as a proportion of basic service subscribers continued to increase, which reflects the global trend. The ratio of mobile (GSM & CDMA) subscribers as a proportion of the basic subscribers in India was about 179% at the end of the year. The incremental growth in the ratio of total mobile (GSM and CDMA) subscribers as a proportion of the basic subscribers has been indicated in Table 1.12 below.



Table 1.12: Mobile Subscribers (GSM and CDMA) as percentage of Basic Subscribers in India - March, 2000 to March, 2006

March, 2000	March, 2001	March, 2002	March, 2003	March, 2004	March, 2005	March, 2006
7.07%	10.94%	16.73%	30.36%	78.64%	113.05%	179.28%

Source: Quarterly Reports of Service Providers

1.1.3 Cellular Mobile Services (GSM Services)

23. After the Unified Access license, mobile includes both GSM and CDMA mobility. To give a comparative picture with respect to earlier reports where cellular mobile was GSM mobility, a section focusing only on GSM services has been provided.
24. The Cellular GSM services reached the 69.19 million subscriber mark at the end of the financial year 2005-06, as compared to 41.07 million during the previous year. It added around 28.12 million subscribers during the year, with a remarkable growth of around 68.47%. M/s Reliance and M/s Bharti have acquired licenses in all 23 service areas for offering mobile services. M/s Bharti and M/s Reliance are the only private operators who are providing services in All India, i.e., 23 service areas.
25. In Cellular GSM services, in terms of subscriber base and market share, M/s Bharti with 19.58 million subscriber base remains the largest GSM operator followed by M/s BSNL, M/s Hutch, and M/s Idea with subscriber base of 17.16 million, 15.36 million and 7.37 million, respectively. The subscriber base of all the GSM operators except M/s BSNL in Punjab has increased. The market share of different GSM and CDMA operators is given below in the Tables 1.13 and 1.14, respectively.



Table 1.13: Market Share of different GSM Operators in terms of subscriber base as on 31st March, 2006

Cellular Group	No. of subscribers (in millions)	Market Share (%)
Bharti	19.58	28.30%
BSNL	17.16	24.80%
Hutchison	15.36	22.20%
Idea	7.37	10.65%
Aircel	2.61	3.77%
MTNL	1.94	2.80%
Spice	1.93	2.79%
Reliance	1.9	2.75%
BPL Group	1.34	1.94%
Total	69.19	

Source: Service Providers

Table 1.14: Market Share of different CDMA Operators in terms of subscriber base as on 31st March, 2006

CDMA Group	No of Subscribers (in Millions)	Market Share (in %age)
Reliance Infocomm	15.41*	73.56
Tata Teleservices	4.85*	23.15
BSNL	0.49	2.34
MTNL	0.11	0.53
HFCL	0.06	0.29
Shyam Telelink	0.03	0.14
Total	20.95	

Source : Service Providers

* These figures do not include the WLL (F) subscribers

26. Table 1.15 indicates the number of licensees (Cellular and Unified) and their subscriber base for GSM services at the end of March, 2006.

Table 1.15 : Number of Licensees and their Subscriber Base for Cellular Mobile (GSM) services as on 31st March, 2006

Number of Service Areas	23
Number of private licensees	70
Total Number of subscribers	69.19 million
- Metros (including MTNL)	15.86 million
- Circles	53.33 million

27. Table 1.16 below provides information on the subscriber base for Cellular Mobile (GSM) services in Metros and Circles for the period March, 2002 to March, 2006.

Table 1.16: Subscriber Base for Mobile (GSM) Services in Metros and Circles from March, 2002 to March, 2006

Categories	March, 2002	March, 2003	March, 2004	March, 2005	March, 2006
Metros	2,567,757	4,439,524	7,941,766	11,018,998	15,860,318
"A" Circles	2,134,333	4,364,943	9,708,299	14,897,024	24,332,549
"B" Circles	1,501,151	3,374,538	7,402,067	12,660,861	22,727,117
"C" Circles	222,573	508,632	1,112,273	24,892,32	6,279,729
Total	6,430,814	12,687,637	26,154,405	41,066,272	69,199,713

Source: Reports of Service Providers



28. Table 1.17 indicates the additional GSM Mobile subscribers and annual growth rates for different categories of Circles during the years 2003-04, 2004-05 and 2005-06.

Table 1.17: Additional GSM Mobile Subscribers added and annual growth rate in different Circles during 2003-04, 2004-05 and 2005-06

Circles	No. of Subscribers added during Apr,03 to Mar,04	% Growth during year 2003-04	No. of Subscribers added during Apr,04 to Mar,05	% Growth during year 2004-'05	No. of Subscribers added during Apr,05 to Mar,06	% Growth during the year 2005-06
Metro	35.02 lakhs	79%	32.78 lakhs	39%	48.41 lakhs	43.94%
Circle 'A'	53.33 lakhs	122 %	51.89 lakhs	53%	94.35 lakhs	63.34%
Circle 'B'	41.27 lakhs	119%	52.59 lakhs	71%	100.66 lakhs	79.51%
Circle 'C'	6.04 lakhs	119 %	13.77 lakhs	124%	37.90 lakhs	152.28%
All India	135.66 lakhs	106%	149.08 lakhs	57%	281.33 lakhs	68.47%

Source: Quarterly Reports of Service Providers

29. It may be seen from the above table that the subscriber base for GSM cellular mobile services has registered remarkable annual growth of 68.47% and maximum growth of 152.28% was observed in 'C' Circle during 2005-06.

1.1.4 Public and Private Sector Contribution in the growth of Fixed and Mobile Services

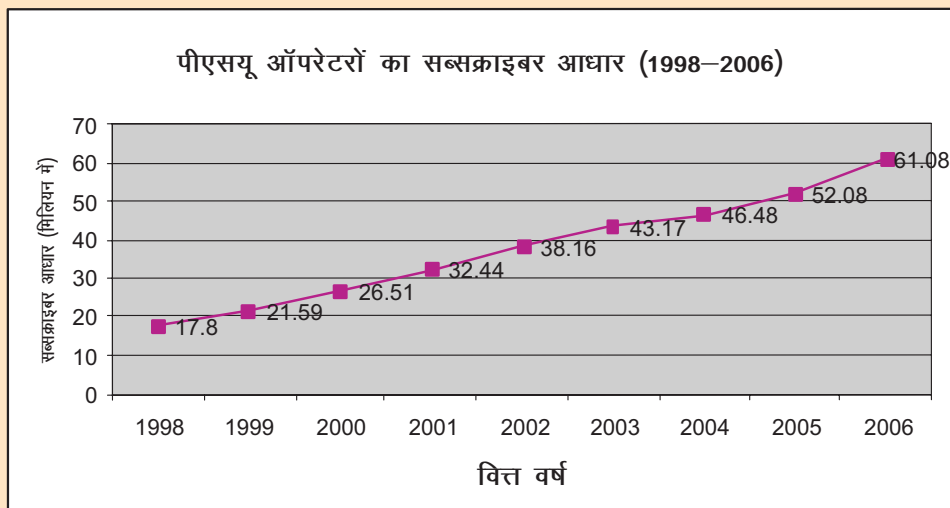
30. In the pre-reform period, growth in telecom services was primarily driven by public sector monopoly, showing very marginal growth, as the incremental tele-density between 1948 and 1998, a 50 year period, was only 1.92%. Telecommunication development in the initial stage of the reforms process beginning with NTP'94 started at a slow pace, but accelerated later on under NTP'99, which provided for migration from fixed license fee to revenue share regime. Cost-oriented Telecom tariffs were also introduced by TRAI in 1999. From 2003 onwards, as a result of certain pragmatic decisions by the Government and the Regulator, viz., introduction of Calling Party Pays (CPP) regime, Unified Access licensing regime,



lowering of access deficit coupled with introduction of revenue share regime in ADC triggered further growth.

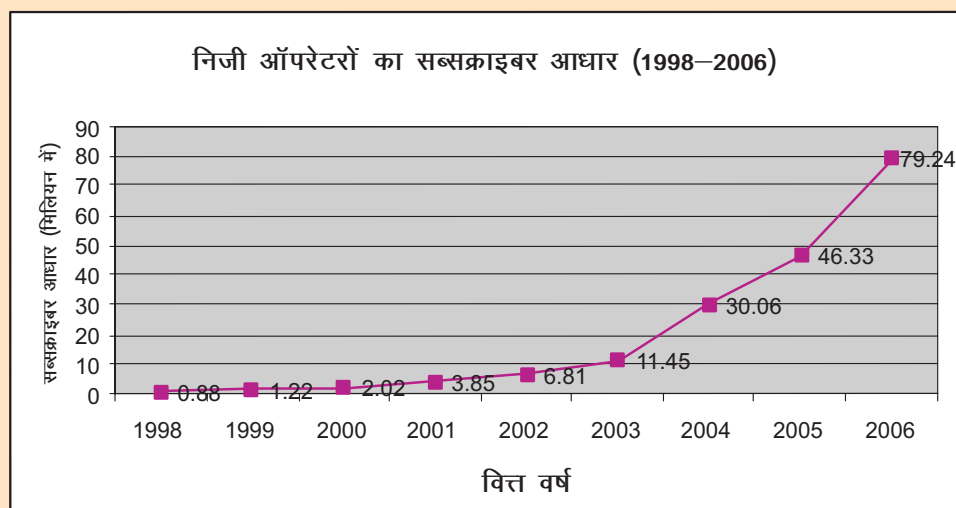
31. The policy and regulatory regime established by the Government and the Regulator has led to speedy growth of subscriber base of the incumbent Public Sector Undertakings as well as that of the private sector operators. During the period 1998-2006, the absolute growth in subscriber base of PSU operators was 43.28 million comprising of 23.58 million fixed subscribers and 19.70 million mobile subscribers. The PSU Operators have shown remarkable growth in the competitive environment, while in the pre-reform non-competitive environment, their performance was slow. Figure 1.1 below shows growth in subscriber base of PSU Operators.

Figure 1.1 : PSU Operators' Subscriber base (1998-2006)



32. Private operators have also shown remarkable growth in a highly competitive environment. The overall growth in the subscriber base of private operators during 1998-2006 was 78.36 million comprising of 7.92 million fixed subscribers and 70.44 million mobile subscribers. Private operators have contributed very largely to post 1998 growth primarily in mobile services due to the obvious cost and fast deployment advantages. The Figure 1.2 below shows the growth in subscriber base of private operators.

Figure 1.2 : Private operators' subscriber base (1998-2006)



1.1.5 Radio Paging Services

33. In India, the Radio Paging Service was opened up in 1992 and the Service was commercially launched in the year 1995. The licenses were awarded on Circle basis and City basis. The growth in the initial years was encouraging but of late the industry has been facing fierce competition from cellular sector resulting in rather dismal performance. After March, 1999, the subscriber base of Radio Paging Services both in Cities and Circles is decreasing. In the initial stage, 106 licenses were awarded to City Operators and 31 licenses to Circle Operators. On 18.12.2000, TRAI provided the Government with its recommendations on fresh licenses for Radio Paging Services, permitting migration of existing licensees of Circle Radio Paging Licensees to NTP '99 regime. As per Department of Telecommunication's letter No. 843-175/2003-BS III dated 27.12.2005, the Radio Paging Service Providers whose licenses are still existing are as under:

(a) City Licensees

1. M/s Page Point Services India Ltd. (Mumbai, Bangalore, Pune, Hyderabad)
2. M/s Microwave Communication Ltd.(Mumbai, Kolkata, Vadodara, Ahmedabad, Surat, Rajkot, Delhi)

3. M/s Beltron Telecommunication Ltd. (Ludhiana, Amritsar, Patna, Surat, Nagpur, Varanasi)

(b) Circle Licensees

1. M/s India Paging (Formerly known as BPL Wireless Telecommunications Services Ltd.)
2. M/s Netherlands India Communication Enterprises Pvt. Ltd. (under arbitration)

34. It may be seen from the above that licenses of only four Radio Paging Service Providers are still existing. Rest of the Radio Paging operators have either closed their services or their licenses have expired. After December, 2004, the performance reports of Radio Paging Service Providers have not been received from the operators. Subscriber base in Radio Paging industry during the years 1999-2006 is indicated in Table 1.18 below.

Table 1.18: Subscriber Base of the Radio Paging Services from March, 1999 to March, 2006

City Radio Paging Operators								
	Mar, 99	Mar, 00	Mar, 01	Mar, 02	Mar, 03	Mar, 04	Mar.05	Mar.,06
Subscriber base	6,80,880	6,60,510	5,83,815	4,55,230	2,89,265	1,02,569	*28,028	Not Reported
Growth in %	7.1	-3.0	-11.6	-22.02	-36.46	-56.94	-72.67	—

Source: Quarterly Reports of Service Providers

* Figures of March, 2005 not reported by service providers, so the figures of Dec, 2004 have been indicated



1.1.6 Very Small Aperture Terminals (VSATs)

35. VSAT Services are being provided by 9 VSAT Service Providers. VSAT Industry added 11,771 VSAT connections during the year 2005-06. The total number of VSAT connections increased from 38,303 in March, 2005 to 50,074 in March, 2006 registering a growth rate of 30.73% as compared to growth rate of about 38.77% in 2004-05. The number of VSAT connections as on 31st March, 2006 is shown below in Table 1.19.

Table 1.19: Number of VSAT Connections as on 31st March, 2006

S. No	Service Provider	As on 31.03.2005	As on 31.03.2006
1	Essel Shyam	1,652	2,649
2	GNFC	26	23
3	Bharti Broadband (earlier Comsat Max)	4,453	4,740
4	Bharti Infotel (earlier Bharti BT)	5,581	7,265
5	ITI	51	49
6	Hughes	12,012	15,669
7	Telstra Vishesh	127	Not Reported
8	HCL Comnet	13,452	17,110
9	Tata Services	949	2,569
	Total	38,303	50,074

Source: Quarterly Reports of Service Providers

1.1.7 Public Mobile Radio Trunked Services

36. Public Mobile Radio Trunked Service (PMRTS) was opened for private sector in the year 1995. As on 31st March, 2006, PMRTS is being provided by 12 operators. The subscriber base of PMRTS has recorded a growth rate of 13.75% during 2005-06 over the previous year. Its subscriber base increased from 26,330 at the end of March, 2005 to 29,950 at the end of March, 2006. Number of PMRTS customers as on 31st March, 2006 is given below in Table 1.20.

Table 1.20: Number of PMRTS Customers as on 31st March, 2006

S. No	Service Provider	March, 2005	March, 2006
1.	Aryadoot Transport Pvt. Limited	1,030	1,271
2.	Jet-Aiu Skyline Transport Pvt. Ltd.	372	391
3.	Arya Offshore Services Pvt. Ltd.	1,495	1,455
4.	Hapag Llyod (German Express Shipping Agency (India) Pvt. Ltd.	835	1,123
5.	United Liner Agencies of India (Pvt.) Ltd	1,820	1,997
6.	Procall Limited	8,121	8,525

S. No	Service Provider	March, 2005	March, 2006
7.	Smartalk Pvt. Ltd	1,408	1,562
8.	Container Movement Transport Pvt. Ltd.	5	5
9.	QuickCalls	3,654	4,509
10	Bhilwara Telenet Services Pvt Limited	735	1,064
11.	The Arvind Mills Ltd.	6,520	7,797
12.	India Satcom Ltd.	252	251
13.	Mobikom India Ltd.	83	Not in service
	TOTAL	26,330	29,950
	Growth in %age		13.75%

Source: Quarterly Reports of Service Providers

1.1.8 Internet Services

37. TRAI is constantly monitoring the growth of the Internet services in the country by way of Performance Monitoring Reports from Internet Service Providers (ISPs). Several problems raised by ISPs were successfully resolved by TRAI to create conducive environment and to encourage the growth of the service during the financial year. On the basis of TRAI's recommendations on 'Accelerating Growth of Internet and Broadband', Government announced the Broadband Policy, 2004 on 14th October, 2004. However, the Broadband penetration was still very slow. Concerned about slow broadband penetration in the country, on 3rd November, 2005, TRAI recommended to the Government to review some of the provisions of Broadband Policy, 2004 and to reconsider its earlier recommendations pertaining to Local Loop Unbundling and fiscal incentives for Broadband.

38. As on 31st March, 2006, there were 395 licencees for Internet Services (Category A – 62; Category B – 129; and Category C – 204). The Internet subscriber base in the country as on 31st March, 2006 stood at 69.35 lakhs as compared to 55.50 lakhs at the end of March, 2005. There was an increase of about 25% in the subscriber base during this financial year as compared to the preceding year. A table of ISPs who have already started Internet service and their subscriber base as on 31st March, 2006 is furnished at **Annex Table 1**.



39. The distribution of Internet Subscribers between Govt. ISPs and Private ISPs as on 31st March, 2006 is shown below in Table 1.21.

Table 1.21: Number of Internet Subscribers as on 31st March, 2006

Government ISPs	39.13 lakhs
Non-Government ISPs	30.22 lakhs
Total	69.35 lakhs

Source : Service Providers

40. The market share of top five Internet Service Providers (ISPs) in terms of subscriber base as on 31st March, 2006, is indicated in Table 1.22 below.

Table 1.22 : Market Share of Top Five Internet Service Providers(ISPs) in terms of subscriber base as on 31st March, 2006

S.No.	ISP	Market Share
1.	Bharat Sanchar Nigam Ltd.	42.24%
2.	Mahanagar Telephone Nigam Ltd.	14.19%
3.	Sify Ltd.	12.96%
4.	Videsh Sanchar Nigam Ltd.	8.02%
5.	Bharti Televentures Ltd.(Bharti Infotel)	5.66%

Source: DoT/Service Providers

41. Among PSUs owned ISPs, M/s BSNL and M/s MTNL have reported a subscriber base of 29.29 lakhs and 9.84 lakhs, respectively, while M/s Sify Ltd., M/s VSNL and M/s Bharti Televentures have a subscriber base of 8.98 lakhs, 5.56 lakhs, and 3.92 lakhs, respectively, as of 31st March, 2006.

1.1.9 Internet Telephony

42. On the recommendation of TRAI, Government issued the guidelines for opening of Internet Telephony and opened it with effect from 1st April, 2002. By 31st March, 2006, the DOT

has given permission to 134 ISPs (Category A- 39; Category B-60; and Category C-35) to offer Internet Telephony services, and 32 ISPs have reported start of this service. These ISPs are listed in Table 1.23 below.

Table 1.23: List of Internet Telephony Service Providers as on 31st March, 2006

S. No.	Name of ISP
1	HCL Infinet Ltd.
2	Icenet.net Limited
3	Broadband Pacenet (I) Pvt. Ltd.
4	CJ Online Private Ltd.
5	Southern Online Bio Technologies Ltd.
6	Mahanagar Telephone Nigam Ltd.
7	NetMagic Solutions (P) Ltd.
8	Value Healthcare Ltd.
9	Gateway Systems (I) Ltd.
10	In2Cable.Com(India) Ltd
11	Apna Telelink Ltd.
12	DelDSL Internet Pvt. Ltd.
13	Bharti Televentures Ltd.(Bharti Infotel)
14	Hathway Cable & Datacom Pvt. Ltd.
15	Bharat Sanchar Nigam Ltd.
16	Sify Ltd.
17	PBC Ventures Ltd.
18	Netlinx Ltd.
19	Videsh Sanchar Nigam Ltd.
20	Iqara Telecom India Pvt. Ltd. (BG Broadband)
21	Trak Online Net India Pvt.Ltd
22	Data Infosys Ltd.
23	Primus Telecommunications India Ltd.
24	Manipal Ecommerce Ltd.
25	Estel Communications Pvt. Ltd.
26	Narmada Cyberzone Pvt. Ltd.
27	Trikon Electronics Pvt. Ltd.
28	Asianet Satellite Communications Ltd.
29	Pioneer Online Pvt. Ltd.
30	City Online Services Ltd.
31	Vebtel Obconic Internet Pvt. Ltd.
32	Mylai Karpagambal Information Systems (P) Ltd.

Source: Service Providers



43. In addition, some ISPs (in addition to incumbent VSNL) have been permitted to set up submarine cable landing stations for International Gateways for Internet, subject to the guidelines issued by the DOT. As on 31st March, 2006, ISPs who have applied / have been permitted for setting up submarine cable landing stations are:
- a. M/s Dishnet DSL Limited, Chennai
 - b. M/s Bharti Aquanet Limited, Chennai
 - c. M/s Reliance Communications Infrastructure Ltd., Mumbai

1.1.10 Cable TV Services

44. At present, as per latest estimates, there are 108 million households in India having television sets. Out of this, there are 61 million household subscribers of cable television services. At present, over 160 cable and satellite channels are broadcasting in National and regional languages.
45. In order to regulate the 'carriage' of Broadcasting and Cable Services, the Government of India issued a Notification dated 9th January, 2004 by which broadcasting and cable services have been brought within the preview of TRAI in terms of section 2(k) of the Telecom Regulatory Authority of India Act, 1997. The Government also issued an order dated 9th January, 2004 under section 11(d) of the TRAI Act, which mandated TRAI to make recommendations regarding terms and conditions on which the "Addressable Systems" shall be provided to the customers and the parameters for regulating maximum time for advertisements in pay channels as well as other channels. The order also entrusted to TRAI, the function of specifying the standard norms for, and periodicity of revision of rates of pay channels, including interim measures.



1.2 Review of Policies and Programmes

46. The main guiding policy for the telecom sector is the New Telecom Policy ("NTP") 1999. The objectives of the policy are as follows:-

- Access to telecommunications is of utmost importance for achievement of the country's social and economic goals. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the telecom policy.
- Strive to provide a balance between the provision of universal service to all uncovered areas, including the rural areas, and the provision of high-level services capable of meeting the needs of the country's economy,
- Encourage development of telecommunication facilities in remote, hilly and tribal areas of the country,
- Create a modern and efficient telecommunications infrastructure taking into account the convergence of IT, media, telecom and consumer electronics and assist emergence of India as an IT superpower,
- Convert PCOs, wherever justified, into Public Tele-info Centres having multimedia capability like ISDN services, remote database access, and assist emergence of community information systems etc.,
- Transform the telecommunications sector in a time bound manner to a greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players,
- Strengthen research and development efforts in the country and provide an impetus to build world-class manufacturing capabilities,
- Achieve efficiency and transparency in spectrum management,
- Protect defence and security interests of the country,
- Enable Indian Telecom Companies to become truly global players.



47. The specific targets mentioned in the NTP 1999 are:
- Make telephone available on demand by the year 2002 and sustain the position thereafter so as to achieve a tele-density of 7 by the year 2005 and 15 by the year 2010,
 - Encourage development of telecom in rural areas making it more affordable by modifying the tariff structure suitably and making rural communication obligatory for all fixed service providers,
 - Increase rural tele-density from the current level of 0.4 to 4 by the year 2010 and provide reliable transmission media in all rural areas,
 - Achieve telecom coverage of all villages in the country and provide reliable media to all exchanges by the year 2002,
 - Provide internet access to all district headquarters by the year 2000,
 - Provide high speed data and multimedia capability using technologies including ISDN to all towns with a population greater than 2 lakh by the year 2002.



1.2.1 Rural Telephone Network

48. The objectives and targets of NTP 1999 for rural telephone network are as follows:
- Encourage development of telecom in rural areas by making it more affordable through tariff restructure and making rural communication obligatory for all fixed service providers,
 - Rural tele-density to be raised to 4 per hundred by the year 2010,

- Achieve 100% telecom coverage of villages by the year 2002 and provide reliable transmission media in all rural areas.

49. Out of the total 6,07,491 villages in the country, 5,48,843 villages have been provided with Village Public Telephone (VPT) and 58,648 villages are yet to be connected with a VPT as of 31st March, 2006. Most of the VPTs have been installed by BSNL. However, private operators's share in setting up of the VPTs has marginally increased. Of the total additions of 18,227 VPTs during the year, BSNL has added 18,053 VPTs and M/s Bharti Televentures has added 243, while M/s HFCL has reduced their VPTs.

1.2.2 Expansion of Telephone Network

50. The main objectives and targets of NTP 1999 with respect to expansion of telephone network, other than rural network, which has been discussed above, are as follows:

- make telephone available on demand by year 2002 and achieve tele-density of 7 percent by the year 2005 and 15 percent by the year 2010,
- Provide internet access to all Districts Headquarters by the year 2000,
- Provide high speed data and multimedia capability using technologies including ISDN to all towns with population greater than 2 lakhs by the year 2002,
- Conversion of PCOs wherever justified, into Public Tele-Information Centres having multimedia capabilities like ISDN services, remote database access and information systems etc.

51. During the year 2005-06, the subscriber base of the Fixed including WLL(F) services has recorded a growth rate of about 8.62%. The mobile industry has witnessed phenomenal growth during the year with an annual growth rate of 72.62%. The growth in absolute



numbers in mobile subscribers during 2005-06 was 37.92 million, as compared to 18.53 million in 2004-05. By the end of March, 2006, both M/s Bharti and M/s Reliance are operating on All India basis, i.e., in all the 23 Circles. Another telecom sector, which recorded substantial growth was Internet and Broadband services. While the number of subscribers of Internet services increased from 55.50 lakhs in March, 2005 to 69.35 lakhs at the end of March, 2006 recording a growth rate of about 25%, the subscriber base of Broadband increased from 1.8 lakhs in March, 2005 to 13.48 lakhs at the end of March, 2006.

1.2.3 Entry of Private Sector in both basic and value added services

(a) Basic Service

52. After the announcement of the NTP-94, in September, 1994, the Department of Telecommunications issued Guidelines for private sector entry into basic telecom service. In early 1995, bids were called for basic service and were received in August, 1995. By March, 1996, the successful bidders were short-listed for providing basic services and in 1997, license agreements with private basic service operators were signed for six circles. However, unlike other services, the Basic Service did not take off soon after the licenses were awarded.
53. Subsequent to the announcement of the NTP 1999, TRAI's recommendations were sought for grant of fresh licenses for basic telecom service in the 15 vacant telecom Circles and for additional licenses in six Circles where licenses had already been issued. TRAI had given its Recommendations to the Government on 31.8.2000.
54. In line with the TRAI's Recommendations, the Government issued the Guidelines for issue of Licence for Basic Service on 25th January, 2001. These Guidelines provide for opening the Basic Telephone Service without any restriction on the number of operators.



55. By the end of March, 2006, 5 private BSOs namely, M/s Reliance Infocomm Ltd. (20 circles), M/s Tata Teleservices Ltd. (20 circles), M/s Bharti Televentures Ltd. (16 circles), M/s Shyam Telelink Ltd. (Rajasthan circle) and M/s HFCL Infotel Ltd. (Punjab circle) have been awarded licenses. All the five private operators had migrated to Unified Access Service Regime during 2003-04.

(b) Value Added Services - Voice Mail / Audiotex Service

56. Licenses for the Voice Mail / Audiotex Service were initially awarded by the Department of Telecommunications from 1996 on a non-exclusive and first-come-first served basis for a period of five years which can be extended by one year at a time. Meanwhile, the Government adopted the New Telecom Policy, 1999 (NTP'99) with effect from 1st April, 1999. This policy does not cover any special mention about Voice Mail / Audiotex Services. Pursuant to the announcement of NTP'99, the Government took the decision to permit migration of existing licensees of Cellular, Basic and other value added telecom services to NTP-99 Regime. The recommendations of TRAI were sought in August, 2000, in regard to license fee arrangement for migration of the existing Voice Mail Service Operators and finalization of terms and conditions for issue of fresh licenses for Voice Mail Service. TRAI gave its Recommendations to the Government on 29.12.2000 and the Government accepted these Recommendations. Accordingly, the Government issued the Guidelines for issue of licence for Voice Mail/ Audiotex Service on 17.2.2001. In May, 2001, the Government allowed Cellular Mobile Service Providers and Basic Service Operators to provide Voice Mail / Audiotex Service to the subscribers falling within their service area on a non-discriminatory basis, without any separate/ additional licence fee.



1.2.4 Technical compatibility and effective interconnection between service providers

57. In a Multi-Operator environment, it is important to specify an Interconnection Usage Charges (IUC) regime to give greater certainty to the inter-operator settlements and facilitate

interconnection agreements. TRAI notified the Interconnection Usage Charges (IUC) Regulation on 24th January, 2003, which contained inter-alia the charges for origination, carriage and termination of calls in a Multi-Operator environment as well as the Access Deficit Charges (ADC) to cover the access deficit for BSOs on account of below cost access tariff. As per the Regulation, IUC is to be determined based on minutes of usage for various Unbundled Network Elements and the cost of these elements. The IUCs for Origination, Transit and Termination are based on the principles of element based charging, i.e., one operator charging the other for the resources consumed for carriage of its calls in terms of minutes of use.

58. Thereafter, based on several representations received from telecom service providers and stakeholders with respect to the IUC Regime as well as tariff under the new regime, TRAI carried out an extensive review of the IUC Regulation and issued the Telecommunication Interconnection Usage Charges Regulation on 29.10.2003. This IUC Regulation came into force from 1st February 2004. The main features of this IUC Regime were lower total amount of Access Deficit Charges (ADC), uniform termination charges of Rs. 0.30 per minute irrespective of terminating network, reduction of ADC on NLD and ILD calls, all of which resulted into lower tariff environment on voice telephony.

59. In the IUC Regulation dated 29th October, 2003, it was mentioned that in the subsequent years, the Authority would review both the size of the ADC payments as well as the beneficiaries of the ADC regime. Accordingly, TRAI issued a consultation paper on 'ADC Review' on 23.6.2004. Based on the inputs received from the stakeholders during the Open House Sessions, detailed discussions with the service providers and its own analysis, TRAI issued on 6.01.2005 'The Telecommunication Interconnection Usage Charges (Fourth Amendment) Regulation' effective from 1st February, 2005. Under this regulation, the ADC rates have been significantly reduced for



Inter-circle Calls and International Long Distance Calls which led to substantial reduction in tariff for NLD and ILD calls.

60. The Authority further released a Consultation Paper on IUC/ADC on 17th March, 2005 to address a wide range of issues, including (a) Justification of ADC on Fixed Wireless Lines and admissibility of ADC for non-BSNL Fixed Line Operators, (b)ADC as Percentage of Revenue, and its various variants including mixed models, higher ADC on NLD and ILD calls etc., (c) Interconnection Usage Charges (Carriage and Termination issues) including those for Incoming International calls, and whether to have differential rates for carriage and termination, and (d) Implications of increasing disbursement of USO Fund on the quantum of ADC payable. On the basis of the comments received during the Open House Sessions as well as the comments received from the stakeholders and its own analysis, TRAI issued the new IUC Regulation on 23.02.2006. Through this IUC Regulation, TRAI has reduced the amount of ADC and the ADC regime has also been changed from minute based to revenue sharing of AGR (Adjusted Gross Revenue) of telecom service providers in respect of National Long Distance (NLD) calls. Further, to encourage the telecom operators to create infrastructure in Rural Areas, TRAI has also decided that the revenue generated from rural subscribers is to be subtracted for calculation of ADC. In addition, TRAI has fixed the ceiling on carriage charges per minute for Long Distance Calls within India at Rs. 0.65 per minute irrespective of the distance with a view to promote lower domestic prices and to give a greater impetus to subscriber growth. Prior to this regulation, the carriage charges were distance based (i.e., Rs.0.20 for distance up to 50 kms., Rs. 0.45 for 200 kms., Rs.0.50 for 500 kms., and Rs.1.20 for above 500 kms.)

61. On 8th June, 2005, TRAI issued Transit Charges for BSNL's CellOne Terminating Traffic Regulation, 2005 which came into force from 3rd May, 2005 in compliance with the Hon,ble TDSAT's orders dated 3rd May, 2005 in Petition No.20/2004 (COAI & Ors.Vs BSNL & Ors). Under this regulation, no transit charges



shall be levied by BSNL from cellular operators for accessing BSNL's CellOne subscribers wherever the Mobile Switching Centres (MSCs) of both BSNL's CellOne and private CMSPs are connected to the same BSNL switch. The regulation was issued as there had been no direct connectivity between BSNL Cellular and other private CMSPs and the traffic terminating in BSNL's Cellone network was being routed through BSNL's PSTN switch and was being charged @19 paise per minute.

1.2.5 Telecommunication Technology

62. TRAI follows a technology-neutral approach in its policies.

(a) Basic Service

63. Competition generated in basic telephony has forced BSOs to adopt efficient and modern technology to upgrade their existing networks so as to offer new features and value added/supplementary services to the consumers. Billing is a major area where technological innovations are taking place to accommodate on the one hand the various new features and value added/supplementary services and on the other hand the inter-operator charging in the new multi-operator environment. The multi-operator scenario has forced the operators to go for new billing system to handle inter-operator settlements.

(b) Cellular Mobile Services

64. Cellular Mobile services in the country are presently primarily providing voice services along with various value added services and supplementary services such as Short Message Service (SMS), Mobile Internet Service, E-mail services, Chatting services, Conferencing, etc. Most of the operators have started providing General Packet Radio Service (GPRS) to their customers. Various innovative services considering the need of the customers have been evolved. Services like Closed User Group (CUG), Video Conferencing, etc. are also available to mobile customers.



(c) Broadband

65. Broadband is a high-speed connectivity that cuts across the Internet, telephony and video worlds with the capacity for integrating them in a new way. As per Broadband Policy 2004, it is defined as an 'always-on' data connection that is able to support interactive services including Internet access and has the capability of the minimum download speed of 256 kbps to an individual subscriber from the Point of Presence (POP) of the service provider intending to provide Broadband service where such individual Broadband connections are aggregated and the subscriber is able to access these interactive services including the Internet through this POP. The interactive services will exclude any services for which a separate licence is specifically required, for example, real-time voice transmission, except to the extent that it is presently permitted under ISP licence with Internet Telephony. Optical Fibre Technologies, Digital Subscriber Lines (DSL) on copper loop, Cable TV Network, Satellite Media, Terrestrial Wireless are the various technology options for Broadband Services. The Broadband subscriber base in the country has reached to 13 lakhs at the end of March, 2006.

(d) IPv6—the Next Generation Internet Protocol

66. IPv6, developed by the IETF in the mid Nineties, is the Next Generation (version) of the Internet Protocol (IP). IPv6 improves on the addressing capacities of IPv4 by allocating 128 bits to IP addresses instead of 32, thereby opening up an almost infinite pool of IP addresses. Also IPv6 is supposed to be providing various enhancements with respect to security, routing, mobility & QOS etc. As IPv6 can play a very important role in the growth of Internet in the country due to above capabilities, TRAI gave its recommendations on the issues relating to transition from IPv4 to IPv6 and a Task Force has since been formed by Department of Information Technology to facilitate the migration to IPv6 in the country.



(e) National Internet Exchange of India (NIXI)

67. In the Authority's exercise on fostering growth of Internet services in the country which was completed in August 2002, a domestic internet exchange was proposed as being one of the key factors to reduce cost and improving quality of service of Internet. The purpose of this exchange was that Internet traffic that originates in India and has a destination in India should stay within India throughout its route. On the recommendation of the Authority, the Government (DIT) has funded the setting up of National Internet Exchange of India (NIXI) for the purpose of containing the domestic Internet traffic within the country. The four nodes of National Internet Exchange of India have already become operational each at Delhi (NOIDA), Mumbai, Chennai & Kolkata, respectively. Presently 52 connections are linked to various nodes of NIXI by 27 Internet Service Providers.

1.2.6 Implementation of New Telecom Policy

68. The New Telecom Policy 1999 (NTP'99) aims at opening up the telecom sector paving the way for rapid development of the telecom industry. It also envisages that conditions must be created for the telecom industry to adopt new and efficient technologies, provide a wide variety of affordable services, manage transition to converged environment, efficient allocation of frequency spectrum and strengthening of R&D efforts. For achieving these objectives, NTP '99 requires the Government to seek TRAI's views and recommendations. Several such requests were received by TRAI in respect of a number of telecom services. The details of the TRAI's decisions relating to the implementation of the New Telecom Policy are enumerated in Part II and III of this report.

1.2.7 Universal Service Obligation (USO)

69. The Government of India has established Universal Service Obligation Fund (USOF) Administrator based on the TRAI's recommendations dated 03.10.2001. The Administrator



monitors the USO Fund and disburses the same to those Service Providers who are providing services in rural areas. TRAI in its recommendations on "Growth of Telecom Services in Rural India" dated 3rd October, 2005 has suggested the following policy frame- work to encourage USO:

- Sharing of infrastructure to receive support from USO,
- Supporting backbone infrastructure through USO Fund,
- Niche Operators to be supported from USOF and exemption from spectrum charges,
- Funds collected as Universal Access levy should be made available to USOF.

70. Since effective disbursement of USOF shall accelerate growth of telecom services in rural and remote areas, it was felt necessary to evolve a transparent mechanism for activities supported from USOF, viz., Village Public Telephones (VPTs), Rural community Phones (RCPs), Public Telecom and Information Centres (PTICs)/ High speed Public Telecom and Information Centres (HPTICs), Rural Direct Exchange Lines (RDELs), etc. To ensure that the data/information pertaining to USO related activities submitted by the service providers are reliable and transparent, TRAI vide its Direction dated 28.10.2005 mandated all UASPs and BSNL to provide the information pertaining to USO related activities to USOF Administrator on monthly basis and post this data/information on their respective website.

1.2.8 Quality of Service

71. Section 11 (b) (v) of TRAI Act stipulates that TRAI has to lay down the standards of quality of service to be provided by the service providers and has to ensure the quality of service and conduct the periodical survey of such service provided by the Service Providers so as to protect interest of the consumers of telecommunication service. In discharge of this function, TRAI released QoS Regulation for Basic and Cellular Services on 5th July, 2000. The Regulation had prescribed the QoS parameters



for Basic and Cellular services to be achieved in the short term of 12 months, intermediate term of 24 months and long term of 48 months. Since the long term periods set for achieving the QoS benchmarks in the TRAI's Regulation dated 5th July, 2000 (i.e., 36 months for cellular mobile services and 48 months for basic services) were already over and various technological developments necessitated change in QoS parameters, TRAI reviewed the QoS regulation after following the public consultation process and a revised QoS Regulation was issued on 1st July, 2005. The performance reports of each operator against these parameters are obtained on a quarterly basis and these are monitored closely to ensure compliance with the parameters specified in the Regulation. Whenever there is a shortfall in achievement of the parameters, these are taken up with the service providers for compliance. TRAI has also engaged M/s TUV South Asia Ltd., a Consultancy Agency, for carrying out the assessment of QoS and Customer Satisfaction Survey for Basic and Cellular services for four quarters of the year 2006. TRAI has also notified a Regulation on Quality of Service of Dial-up and Leased Line Internet Access Service in December, 2001 fixing benchmarks for Internet Dial-up Access. ISPs are required to comply with the benchmarks as per this regulation.



Annexure

Annex **Internet Service Providers who have started**
Table 1: Internet Service and their Subscriber Base
as on 31st March, 2006

S.No	Name of ISP	Cate- gory	Area of Operation	Total subscriber base as on Mar-06
Category 'A'				
1	Bharat Sanchar Nigam Ltd.	A	All India	2929299
2	Sify Ltd.	A	All India	898708
3	Videsh Sanchar Nigam Ltd.	A	All India	556227
4	Bharti Televentures Ltd.(Bharti Infotel)	A	All India	392470
5	Reliance Communications Infrastructure Ltd.	A	All India	359784
6	Data Infosys	A	All India	245908
7	Iqara Telecom India Pvt. Ltd. (BG Broadband)	A	All India	116851
8	Hathway Cable & Data Pvt Ltd.	A	All India	61986
9	HCL Infinet Ltd.	A	All India	42272
10	Shyam Internet Service Pvt. Ltd.	A	All India	24507
11	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	A	All India	24466
12	Hughes Escorts Communications Ltd.	A	All India	13404
13	Primus Telecommunications India Ltd.	A	All India	10012
14	Spectra Net Ltd	A	All India	9305
15	RPG Infotech Ltd. (Sprint RPG India)	A	All India	5430
16	Trak Online Net India	A	All India	5375
17	In 2 Cable.com(India) pvt. Ltd.	A	All India	5349
18	Siti Cable Network (Zee Interactive Multimedia Ltd.)	A	All India	2336
19	Swiftmail Communications Ltd.	A	All India	1375
20	ERNET India Ltd.	A	All India	1149
21	Dishnet Wireless Ltd.	A	All India	1115
22	Comsat Max Ltd.	A	All India	873
23	Pacific Internet India	A	All India	858
24	Primenet Global Ltd.	A	All India	530
25	Tata Internet Services Ltd.	A	All India	368
26	GUJ Info Petro Ltd.(GIPL)	A	All India	262
27	i2i Enterprise Ltd.	A	All India	214
28	Gateway Systems (I) Ltd.	A	All India	181
29	Worldcom Communications Pvt. Ltd.	A	All India	110
30	Estel Communications Pvt. Ltd.	A	All India	107
31	Reach Network India Pvt. Ltd.	A	All India	105



S.No	Name of ISP	Category	Area of Operation	Total subscriber base as on Mar-06
Category 'A'				
32	n-Logue Communications(P) Ltd	A	All India	59
33	L&T Finance Ltd. (L&T Netcom Ltd.)	A	All India	56
34	RailTel Corporation of India Ltd.	A	All India	27
35	Gujrat Narmada Valley Fertilizer Co. Ltd. (GNFC)	A	All India	19
36	Essel Shyam Communication Ltd,	A	All India	18
37	World Phone Internet services (P) Ltd.	A	All India	17
38	Astro Network India Pvt. Ltd.	A	All India	16
39	GTL Ltd.	A	All India	9
40	Cyquator Technologies Ltd.	A	All India	8
41	Software Technology Park of India (STPI)	A	All India	8
42	HCL Comnet	A	All India	0
43	Nelco Ltd.	A	All India	0
Category 'B'				
44	Mahanagar Telephone Nigam Ltd.	B	Mumbai & Delhi	984020
45	ICENET.NET Ltd.	B	Gujrat	31209
46	Asianet Sattelite Communications Ltd.	B	Kerala	28605
47	HFCL Infotel Ltd.	B	Punjab	23589
48	Fascel Ltd.	B	Gujarat	18001
49	WWW Communications Ltd.	B	Delhi	15515
50	Broadband Pacenet (I) Pvt. Ltd.	B	Mumbai	11478
51	Seven Star Dot Com Pvt. Ltd.	B	Khar(w), Jogeshwari (w)	9013
52	West Bengal Electronics Industry Development Corporation Ltd.	B	Calcutta	8030
53	S. S. net Com Pvt Ltd.	B	North East	7833
54	Tulip IT Service Ltd.	B	Kerala	6000
55	Space Online (P) Ltd.	B	Gujarat	4788
56	Rolta India Ltd.	B	Mumbai	4512
57	Trikon Electronics	B	Mumbai	4315
58	Southern Online Bio Technologies Ltd.	B	Andhra Pradesh	3342
59	Blazenet Pvt. Ltd.	B	Gujrat	3249
60	Narmada Cyberzone Pvt. Ltd.	B	Gujrat	3073
61	Sixth Sense Informatics Pvt. Ltd.	B	Mumbai	2600
62	City Online Services Pvt. Ltd.	B	Andhra Pradesh & Karnataka	2263
63	Geocity Network Solutions Pvt. Ltd.	B	Delhi	2151
64	Value Heathcare Ltd.	B	Mumbai	1777
65	Sab Industires Ltd. (Sab Infotech)	B	Punjab, Karnal & Dharamshala	1770



S.No	Name of ISP	Category	Area of Operation	Total subscriber base as on Mar-06
Category 'B'				
66	Hathway Bhawani Cable & Datacom	B	Mumbai	1553
67	Jain Info net Pvt Ltd.	B	Rajasthan	1431
68	Ankhnet Information Pvt. Ltd.	B	Mumbai	1379
69	Jindal Online.com Ltd.	B	Gujrat	1025
70	Mylai Karpagamba Information System Pvt. Ltd.	B	Chennai	964
71	Broadlyne Infoservices Pvt. Ltd.	B	Mumbai	900
72	Pioneer Online Service Pvt. Ltd.	B	Andhra Pradesh	861
73	Ice Network (P) Ltd.	B	Bangalore	785
74	My Guru Online	B	Andhra Pradesh	495
75	Growth Compusoft Exports Ltd.	B	Gujrat	444
76	Silicon Mountains (I) Ltd.	B	Maharashtra	425
77	SpaceCom Broadband Network Ltd.	B	Delhi	366
78	Rajasthan Telematics Ltd.	B	Rajasthan	350
79	Karuturi Networks Limited	B	Karnataka	331
80	Atria Convergence Technologies Pvt. Ltd.	B	Karnataka	298
81	Alliance Broadband Services Pvt. Ltd.	B	Kolkata	290
82	NetMagic Solutions (P) Ltd.	B	Mumbai	280
83	Vainavi Industries Ltd. (MAC Info Pvt. Ltd.)	B	Hydrabad	230
84	Online Media Solutions Ltd.	B	Andhra Pradesh	200
85	Viraj Telecom Ltd.	B	Karnataka	105
86	E-Comm Opportunities Pvt. Ltd.	B	Gujrat	84
87	Manipal Ecommerce Ltd. (Manipal Control Data Electronic Commerce Ltd.)	B	Karnataka	61
88	Vebtel Obconic Internet Protocol Pvt. Ltd.	B	Andhra Pradesh	55
89	Direct Internet Pvt. Ltd.	B	Delhi	46
90	Swastik netvision telecom pvt. Ltd.	B	Gujrat	38
91	Netlinx Ltd.	B	Andhra Pradesh	36
92	Indian Quotations Systems Pvt. Ltd.	B	Mumbai	32
93	Chandra net Pvt. Ltd.	B	Gujrat	25
94	PBC Venture Ltd. (earlier Chemical & Metallurgical Design Co. Ltd.)	B	Delhi	23
95	Access Online Pvt. Ltd.	B	Mumbai	22
96	IOL Broadband Ltd. (India Online Network Ltd.)	B	Mumbai	22
97	Uttar Pradesh Network Pvt. Ltd.	B	Uttar Pradesh (E&W)	10
98	Astra Infonets Pvt. Ltd.	B	Hydrabad	6
99	Godrej Infotech Ltd.	B	Mumbai	5
100	Surana Telecom Ltd.	B	Andhra Pradesh	3



S.No	Name of ISP	Category	Area of Operation	Total subscriber base as on Mar-06
Category 'B'				
101	Bhasinsoft India Ltd.	B	Karnataka	0
102	VSNL Broadband Ltd. (Tata Power Broadband Company)	B	Mumbai	0
103	Descon Ltd.	B&C	Kolkata, West Bengal	1781
104	CJM Consultancy Services Pvt. Ltd.	B&C	Delhi, Ghaziabad	641
105	deDSL Internet Pvt. Ltd.	B&C	Delhi, Ghaziabad Gurgaon	183
Category 'C'				
106	Ortel Communications Ltd.	C	Cuttack, Bhubaneswar, Rourkela	5461
107	Digital 2 Virtual ISP Private Ltd.	C	vadodara	5156
108	Forum Infotech (P) Ltd.	C	Srinagar SSA	5050
109	Vasnet Communications Pvt. Ltd.	C	Mangalore SSA	2502
110	iPath India Pvt. Ltd.	C	Ernakulam	951
111	Spectrum softech Solutions	C	Ernakulam SSA	923
112	Broadlane Network Pvt. Ltd.	C	Kalyan SSA	898
113	Websurf Pvt. Ltd.	C	Kalyan SSA	791
114	Kappa Infotech Pvt Ltd.	C	Kota SSA	593
115	Sanchar Telenetwork Pvt. Ltd.	C	Bhavnagar SSA	575
116	Bohra Prastisthan Pvt. Ltd.	C	Udaipur SSA	533
117	Speed Online.net Pvt. Ltd.	C	Rajkot	525
118	Uclix Computer's Pvt. Ltd.	C	Jodhpur	525
119	Quest Consultancy Pvt. Ltd.	C	Valsad	503
120	Bhaskar Multinet Pvt. Ltd.	C	Jaipur SSA	454
121	Micky Online Pvt. Ltd.	C	Moradabad, Nainital	450
122	deLaila Industry Pvt. Ltd.	C	Srinagar SSA	440
123	C-Tel Solutions Pvt. Ltd.	C	Gurgaon SSA	422
124	Bhupati Hotels Pvt. Ltd.	C	Visakhapatnam	413
125	ISP Solutions India Pvt. Ltd.	C	Coimbatore SSA	355
126	Rida Communications Pvt. Ltd.	C	Aligarh	330
127	Emtici Engineering Ltd.	C	Khera SSA	305
128	Lee & Nee Softwares (Exports) Ltd.	C	Bhuvaneshwar	303
129	Starnet Online Services Ltd.	C	Visakha patnam SSA	216
130	Trans Virtual Pvt. Ltd.	C	Guwahati	196
131	Digital Nagpur Online Pvt. Ltd.	C	Nagpur	186



S.No	Name of ISP	Category	Area of Operation	Total subscriber base as on Mar-06
Category 'B'				
132	CJ Online Pvt. Ltd.	C	Ghaziabad SSA	168
133	Q Tel Comtech Ltd.	C	Gurgaon	154
134	Planet Internet Satellite Pvt. Ltd.	C	Nadiad SSA	144
135	North East Online Services Pvt. Ltd.	C	Guwahati	142
136	Tawi e.com	C	Jammu Tawi	119
137	Cable Combine Communication Pvt. Ltd.	C	Siliguri	116
138	Czars Oleoresin Pvt. Ltd.	C	Gulbarga	93
139	Aksh Broadband Ltd.	C	Jaipur SSA	85
140	Sanyog Networks Pvt. Ltd.	C	Tripura	80
141	Mynet Services India Pvt. Ltd.	C	Salem	74
142	Instant Cable Network Pvt. Ltd.	C	Gurgaon SSA	72
143	Saravana Cables Pvt. Ltd.	c	Trichirapalli SSA	68
144	Opto Networks Pvt.Ltd.	C	Ghaziabad, Meerut SSA	34
145	Centre for Development of Advanced Computing, C-DAC (Electronics Research and Development Centre of India (ER&DC))	C	Ghaziabad	20
146	Conjoinex Technologies Pvt. Ltd.	C	J&K, Chandigarh	17
147	Nachiket (I) Management Services (P) Ltd. (Diksha Cyber City)	C	Sri Ganganagar	13
148	Samkhya Networks (P) Ltd.	C	Gurgaon	9
149	A-Team Information Technology Ltd.	C	Erode	8
150	Akaansha Infotainment Pvt. Ltd.	C	Kamrup SSA	6
151	Arun Girija Communications Pvt Ltd.	C	Patna SSA	4
152	Compucom (I) Ltd.	C	Jaipur SSA	2
153	Apna Telelink Pvt Ltd.	C	Jalandhar SSA	0
	Total			6934575





PART-II

**REVIEW OF WORKING AND OPERATION
OF THE TELECOM REGULATORY
AUTHORITY OF INDIA**





2. REVIEW OF WORKING AND OPERATION OF THE TELECOM REGULATORY AUTHORITY OF INDIA

1. Part I of the Report has given an overview of the general environment prevailing in the telecom sector including broadcasting and cable services and has highlighted the policies and programmes of the Government during 2005-06. The main thrust of TRAI's functioning is to create conditions for efficient competition and growth in the telecom sector including broadcasting and cable services together with better quality and affordable prices, in order to meet the objectives of New Telecom Policy, 1999 (NTP'99). In keeping with the mandate given under the TRAI Act, the TRAI has played a catalytic role in the development of the telecom, broadcasting and cable services. It has been its endeavour to provide an environment, which is fair and transparent, encourages competition, promotes a level- playing field for all service providers, protects the interest of consumers and enables technological benefits to one and all.
2. The Government of India issued a Notification dated 9th January, 2004 by which broadcasting and cable services have been brought within the ambit of telecommunication services in terms of section 2(k) of the Telecom Regulatory Authority of India Act, 1997 as amended by the TRAI (Amendment) Act, 2000. With this notification, the 'carriage' part of broadcasting and cable services has come under the purview of TRAI.
3. Under the TRAI Act, 1997, as amended, TRAI is mandated, inter-alia, to ensure compliance of the terms and conditions of license, lay down the standards of quality of service to be provided by the service providers and ensure the quality of service, specify tariff policy and recommend conditions for entry of new service providers as well as terms and conditions of license to a service provider. TRAI's scope of work also includes consideration and decisions on issues relating to monitoring of tariff policy, commercial and technical aspects of



interconnection, principles of call routing and call handover, free choice and equal ease of access for the public to different service providers, resolution of conflicts that may arise due to market developments and diverse network structures for various telecom services, need for up-gradation of the existing network and systems, and development of forum for interaction amongst service providers and interaction of the Authority with consumer organizations. The Government issued an order dated 9th January, 2004 under section 11(d) of the TRAI Act, which mandated TRAI to make recommendations regarding terms and conditions on which the "Addressable Systems" shall be provided to the customers and the parameters for regulating maximum time for advertisements in pay channels as well as other channels. The order also entrusted to TRAI, the function of specifying the standard norms for, and periodicity of revision of rates of pay channels, including interim measures.

4. To formulate its policies and recommendations, TRAI interacts with various stakeholders such as the service providers, their organizations, Consumer Advocacy Groups/Consumer Organizations and other experts in this field. It has developed a process which allows all the stakeholders and the general public to participate in policy formulation by offering their views whenever sought for. This process involves holding Open House Meetings arranged in different parts of the country, inviting written comments over e-mails and through letters, and having interactive sessions with stakeholders and experts to obtain different views and clarifications on policy issues. The Regulations / Gazette Orders issued by TRAI also contains an Explanatory Memorandum which explains the basis on which the decisions are taken. The participative and explanatory process adopted by TRAI has received wide acclaim.

5. TRAI also interacts with the consumer organizations / NGOs in the telecom and broadcasting sector to obtain their views. It has a system of registering consumer organizations /NGOs connected with telecom functions and of interacting with them at regular intervals. TRAI has registered 24 consumer organizations from all over the country and is constantly adopting measures for strengthening the consumer organizations. It



also organizes Seminars and Workshops with the participation of International Experts on various technical issues and invites stakeholders, consumer organizations and other research institutes to attend these seminars.

6. During the year 2005-06, TRAI notified :
- (a) the Telecommunication Tariff Order (36th Amendment) revising ceiling tariff for Domestic Leased Circuits,
 - (b) the Telecommunication Tariff Order (37th Amendment) fixing separate ceiling tariff for 64 kbps Managed Leased Line Network (MLLN) Domestic Leased Circuits as an interim measure for a period of one month,
 - (c) the Telecommunication Tariff Order (38th Amendment) fixing cost based ceiling tariff for 64 kbps Managed Leased Line Network (MLLN) Domestic Leased Circuits,
 - (d) the Telecommunication Tariff Order (39th Amendment) fixing ceiling tariff for International Private Leased Circuits (Half-circuit) for various capacities,
 - (e) the Telecommunication Tariff Order (40th Amendment) keeping the 39th Amendment to TTO, '99 in abeyance in pursuance of Hon'ble TDSAT's order dated 14/9/2005,
 - (f) the Telecommunication Tariff Order (41st Amendment) giving effect to the tariff order for International Private Leased Circuits (Half-circuit) notified vide 39th Amendment to TTO,'99 from 29.11.2005 after dismissal of appeal by the Hon'ble TDSAT,
 - (g) the Telecommunication Tariff Order (42nd Amendment) relaxing the reporting requirement provision of TTO '99 in respect of bulk customers,
 - (h) the Telecommunication Tariff Order (43rd Amendment) laying regulatory policies in respect of tariff plans with life-time validity,



- (i) the Telecommunication (Broadcasting & Cable) Services (Second) Tariff (Third Amendment) Order, 2005 dated 29th November, 2005 whereby 4% increase for inflation was allowed with effect from 01.01.2006, (this tariff order has since been stayed by the Hon'ble TDSAT),
- (j) the Telecommunication (Broadcasting & Cable) Services (Second) Tariff (Fourth Amendment) Order, 2006 dated 7th March, 2006 for fixation of tariffs for Hotels etc. as an interim measure,
- (k) the Telecommunication (Broadcasting & Cable) Services (Second) Tariff (Fifth Amendment) Order, 2006 dated 24th March, 2006 clarifying that the tariff order dated 7th March, 2006 would be applicable to only those hotels/ restaurants which are getting services from broadcasters and authorised MSOs/ Cable Operators.

7. Following Recommendations have been given by TRAI to the Government during 2005-06 :

- (i) Recommendations on Publication of Telephone Directory and Directory Enquiry Services (5th May, 2005),
- (ii) Recommendations on Spectrum related Issues (13th May, 2005),
- (iii) Recommendations on Issues related to Satellite Radio Services (27th June, 2005),
- (iv) Recommendations on Issues related to Virtual Private Network (VPN) (16th August, 2005),
- (v) Recommendations on Issues relating to Private Terrestrial TV Broadcast Service (29th August, 2005),
- (vi) Recommendations on Digitalization of Cable Television (14th September, 2005),
- (vii) Recommendations on Growth of Telecom Services in Rural India (3rd October, 2005),



- (viii) Reiteration of Recommendations pertaining to Local Loop Unbundling and fiscal incentives for Broadband (3rd November, 2005)
- (ix) Recommendations on Promotion of Competition in International Private Leased Circuit (IPLC) Segment (16th December, 2005),
- (x) Recommendations on Transition from Ipv4 to Ipv6 in India (9th January, 2006)
- (xi) Recommendations for permitting usage of strings containing #, \$, £, etc. for accessing High Speed Data Services in Wireless Networks (8th March, 2006)
- (xii) Recommendations on Mobile Number Portability (8th March, 2006)
- (xiii) Recommendations on Next Generation Networks (20th March, 2006)
- (xiv) Recommendations on Issues relating to Convergence and Competition in Broadcasting and Telecommunications (20th March, 2006)

8. TRAI also issued following directions to the Service Providers during this year for compliance of its orders:-

- i) Direction dated 2nd May, 2005 to all Access Providers, COAI & AUSPI mandating publication of tariffs in revised format for consumer information,
- ii) Direction dated 3rd May, 2005 to all CMSPs and UASPs regarding Value Added Services,
- iii) Direction dated 3rd May, 2005 to all CMSPs and UASPs regarding Premium Rate Services,
- iv) Direction dated 7th June, 2005 to all Service Providers on provision of interconnection,



- v) Direction dated 9th June, 2005 to all UASPs/BSOs/CMSPs regarding provision of Wireless Services outside the Licensed Service Area,
- vi) Direction dated 27th June, 2005 to all Telecom Access Providers prescribing procedures to be followed by all operators regarding operation of credit limit for the post-paid subscribers,
- vii) Direction dated 29th June, 2005 to all CMSPs and UASPs mandating them to inform the customers in writing the complete details of tariff plans within a week of activation of service,
- viii) Direction dated 4th July, 2005 to M/s Sify Limited not to present tariff plans as 'unlimited' in cases where the features of the plan involve restriction in usage,
- ix) Direction dated 8th July, 2005 to all Access Providers prescribing time limit for refund of security deposit,
- x) Direction dated 28th July, 2005 to all Service Providers as Corrigendum to the Directive dated 7th June, 2005 on provision of interconnection,
- xi) Direction dated 22nd August, 2005 to M/s Vasai Cable Private Ltd. for providing signals of M/s Star India Pvt. Ltd. to M/s Royal Cable Network, Thane,
- xii) Direction dated 12th September, 2005 to all Internet Service Providers making it mandatory to obtain explicit consent of subscribers before providing any chargeable service,
- xiii) Direction dated 16th September, 2005 to all Telecom Service Providers prohibiting tariff plans with misleading titles,
- xiv) Direction dated 28th October, 2005 to all UASPs and BSNL regarding posting of information pertaining to USO related activities on their website by the service providers,



- xv) Direction dated 16th November, 2005 to BSNL, MTNL and some other private cellular operators to furnish compliance report on reciprocity of billing as per Hon'ble TDSAT's order dated 11th November, 2005,
- xvi) Direction dated 29th November, 2005 to all CMSPs for not meeting the quality of service benchmarks laid down by TRAI,
- xvii) Direction dated 21st December, 2005 to all Broadcasters regarding compliance of amended procedure for filing of details of Interconnect Agreement,
- xviii) Direction dated 19th January, 2006 to all Access Providers, NLDOs and ILDOs regarding reporting of International Long Distance Traffic Minutes,
- xix) Direction dated 15th February, 2006 to M/s Reliance Infocomm Ltd. for refund of forfeited unused balance talktime to customers who migrated to lifetime validity plans,
- xx) Direction dated 23rd February, 2006 to M/s ICE Networks for providing TV signals to Sri Mahadeswara Cable Network, Bangalore
- xxi) Direction dated 23rd February, 2006 to M/s Raj Television Network Ltd. for providing TV signals to M/s Tamil Thai Cable Vision, Coimbatore,
- xxii) Direction dated 27th February, 2006 to Mobile Service Providers of Maharashtra, Tamil Nadu, West Bengal and UP for compliance with the license conditions notified by DoT vide its letter No. 842-503/2004-VAS dated 20th May, 2005.

9. During the year 2005-06, TRAI issued the following Regulations:

- ii) The Telecommunication Interconnection Usage Charges (Fifth Amendment) Regulation, (7 of 2005) dated 11th April, 2005,
- ii) The TRAI Meetings for Transaction of Business (First Amendment) Regulation, 2005 (9 of 2005) dated 17th May, 2005,



- iii) Telecom Regulatory Authority of India (Transit Charges for BSNL's CellOne Terminating Traffic) Regulation, 2005 (10 of 2005) dated 8th June, 2005,
- iv) Regulation on Quality of Service of Basic and Cellular Mobile Telephone Services, 2005 (11 of 2005)) dated 1st July, 2005,
- v) The Register of Interconnect Agreement (Broadcasting and Cable Services) (Second Amendment) Regulation, 2005 (12 of 2005) dated 2nd December, 2005,
- vi) The Telecommunication Interconnection Usage Charges (Sixth Amendment) Regulation, (1 of 2006) dated 23rd February, 2006,
- vii) The Telecommunication Interconnection Usage Charges (Seventh Amendment) Regulation, (2 of 2006) dated 10th March, 2006,
- viii) The Register of Interconnect Agreement (Broadcasting and Cable Services), (Third Amendment) Regulation, 2006 (3 of 2006) dated 10th March, 2006,
- ix) Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 dated 21st March, 2006
- x) The Reporting System on Accounting Separation (Fourth Amendment) Regulation, 2006 (4 of 2006) dated 27th March, 2006.

10. Consultation Papers released by TRAI during the year are as under:

- (i) Consultation Paper on Billing Issues,
- (ii) Consultation Paper on Measures to Promote Competition in IPLC in India,
- (iii) Consultation Paper on Issues relating to Entry Fee and Annual License Fee for ISP License with Virtual Private Network (VPN),
- (iv) Consultation Paper on Mobile Number Portability,
- (v) Consultation Paper on Issues relating to Transition from Ipv4 to Ipv6 in India,



- (vi) Consultation paper on proposal for amendment to the Tariff Order of 1.10.2004 relating to Broadcasting and Cable Services,
 - (vii) Consultation paper on issues relating to Convergence and Competition in Broadcasting and Telecommunications,
 - (viii) Consultation paper on Issues pertaining to Next Generation Networks (NGN),
 - (ix) Consultation paper on Differential Tariff for On-Network Calls,
 - (x) Consultation Paper on Tariff Plans with Life-time Validity,
 - (xi) Consultation Note on some issues relating to Broadcasting and Cable Services,
11. In the process of providing its recommendations during the year, the Authority conducted a total of 21 Open House Meetings in different parts of the country which were attended by representatives of service providers, their associations, NGOs/ Consumer Organizations in the telecom sector, telecom experts and the consumers. Authority also held two meetings with the registered Consumer Advocacy Groups on various issues relating to provision of telecom services.

2.1 Rural Telephone Network

12. The various policy initiatives taken by the government so far for increasing the growth of telecom services in rural areas including setting up of Universal Service Obligation Fund, have not given the desired results and, therefore, the Authority felt that a fundamental shift in achieving the growth of telecom service in rural areas is necessary. Keeping this aspect in mind, TRAI submitted its recommendations on Growth of Telecom Services in Rural India on 3rd October, 2005.
13. In the recommendation, TRAI has suggested that the focus of present USO Policy should shift from subsidy based on individual DELs, VPTs, Rural Community Phones etc. to network infrastructure expansion approach. This approach proposes to offer financial incentives to service providers in the form of providing the partial cost of shared infrastructure & license fee



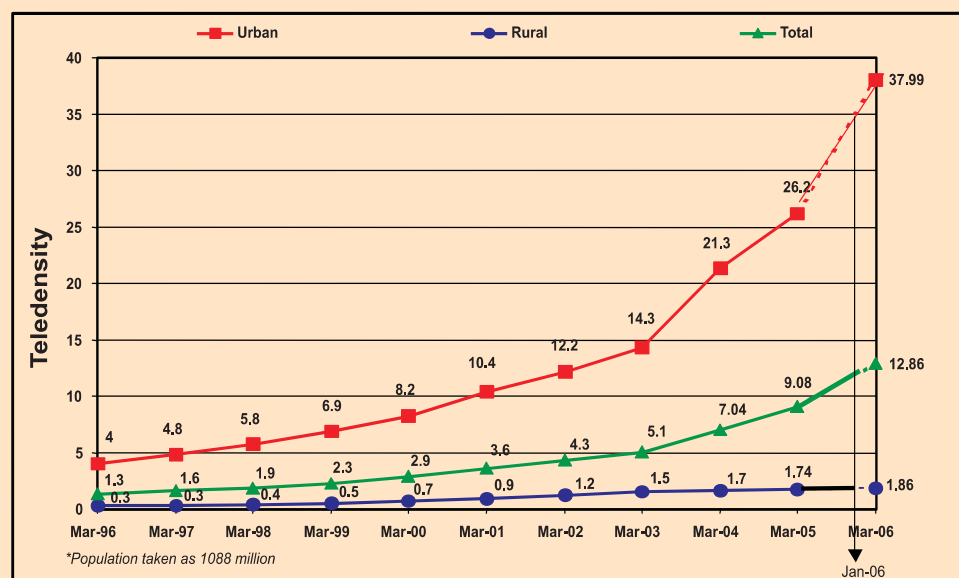
and spectrum charge reduction based on infrastructure roll out in rural areas to enable the service providers to expand telecommunication services in rural areas.

14. The main features of the Recommendations on Growth of Telecom Services in Rural Areas include: (a) Sharing of infrastructure including backbone infrastructure to receive support from USO, (b) Discount in annual license fee and spectrum charges linked with coverage in rural areas, (c) No spectrum fee for usage of CorDect and similar other technologies, (d) No prior SACFA (Standing Advisory Committee for Frequency Allocation) clearance for deployment up to height of 40 meters, (e) Support from USO Fund for penetration of mobile services in rural areas.

15. It has been observed that despite several attempts over the last ten years, telecom infrastructure in rural areas is lagging behind the expected levels. There has been a phenomenal spurt in the growth of tele-density in the country with the evolution of new wireless technologies, but the gap between the urban and rural tele-density has been increasing. This is illustrated in Figure 2.1 shown below.



Figure 2.1: Widening of Rural and Urban Tele-density Gap (March, 1996 to March, 2006)



16. In its Consultation Paper on "Growth of Telecom Services in Rural India : The Way Forward" dated 27th October, 2004, TRAI has analysed the reasons for having higher penetration of telecom services in rural areas. Authority is of the view that in a country like India where around 70% population lives in rural areas, it is necessary for telecom services to penetrate into rural areas if we have to increase the tele-density in the country and we as a nation also join the club of developed countries where high level of telecom penetration has already been achieved. Based on the study of international experience in various countries, Authority has noted that penetration of telecom services in rural areas will enhance the productivity and wealth generating capabilities of the local population which in turn will increase the GDP of the country. On the basis of the experience in various locations within and outside the country, Authority has reached to the conclusion that a largely self-sustainable business model can be created for the telecom services even in the most backward areas. In addition, various applications useful to the local population may be developed with the penetration of telecom services and this will revitalize the rural economy by creating rural micro enterprises. TRAI held Open House Discussions with the stakeholders on the various issues contained in the above referred Consultation Paper, e.g., support to 'Niche Operator' from Universal Service Fund, grant of subsidy to the operators in rural areas on inputs like bandwidth and spectrum charges, sustenance of the USO subsidy model in the long run, etc. On the basis of the inputs received during the consultation process and its own analysis, TRAI finalized its recommendations on Rural Telephony.

17. TRAI is of the view that unless its recommendations on Growth of Telecom Services in Rural Areas are accepted, there shall be further widening in the rural and urban tele-density gap and the impact of USO Fund, despite huge subsidy support, shall be minimal. TRAI's recommendations on rural telephony are still under consideration of the Government.



18. In its Recommendations to the Government on Unified Licensing for all telecom services (13th January, 2005), TRAI has also proposed reduction in license fee for the operators in order to facilitate growth and introduction of niche operators in telecom facility wise less developed areas. In line with these recommendations, Government has since reduced the license fee in respect of most of the service providers except Cellular Service Providers and Unified Access Service Providers. TRAI also continued its earlier policy of keeping the rural tariff low in order to promote affordability.
19. TRAI had earlier submitted its detailed recommendations to the Government on implementation of the policy of the Universal Services Obligations (USO). Based on these recommendations, Government of India had issued guidelines on USO on 27.03.2002. As per the guidelines, the funds generated by Universal Service Levy shall be spent in rural and remote areas on both the public access telephones and community telephones. TRAI also interacts with the Universal Service Fund Administrator and monitors the implementation of USO. It also participates and contributes in Inter-Ministerial Advisory Committee on USO.
20. The Universal Service program is divided into following two streams as per the USO guidelines. These two streams are reproduced as under:-



"a) Stream-I:

Provision of Public Telecom and Information services:

- a) *Installation of VPTs in the remaining villages. For installation of VPTs in the 6,07,491 villages, identified as per 1991 census which were required to be covered by 31.3.2002, no reimbursement towards Capital recovery shall be admissible and given. However, the Net Cost towards operating expenses of these VPTs will be reimbursed. For the remaining villages, i.e. additional revenue villages identified as per 2001 Census, the Net cost towards both, the annual capital recovery as well as annual operating expenses will be allowed as a support from the USF.*

- b) *Provision of additional rural community phones in areas after achieving the target of one VPT in every village. The second public phone will also be installed in villages where population exceeds 2000. These may be provided in public places such as schools, primary health centers etc. and for the purpose of support from the USF, the Net cost towards both annual capital recovery as well as annual operating expenses will be allowed.*
- c) *Replacement of VPTs installed before 1.4.2002. A large number of VPTs working on MARR Systems will in the first instance be required to be replaced to ensure their reliable operation. The BSOs will be required to draw up a yearly plan for replacement of such VPTs and support from USF will be allowed towards both the annual capital recovery as well as annual operating expenses.*
- d) *Upgradation of VPTs to Public Telecom and Info Centers (PTICs). It shall be endeavoured to provide, by the year 2004, for data transmission facilities within 5 Kms of every village and at least in all those villages where regular post offices are located. The reimbursement from the USF will be towards Net Cost that may arise if the PTICs are engineered by upgrading an existing VPT, with the minimum configuration of i) a PC, ii) a Modem and iii) an UPS. Both capital and operational cost will be taken into account to determine the quantum of support from USF. A phased programme will be drawn and implemented to upgrade about 35,000 VPTs to function as PTICs by end of year 2004.*
- e) *Installation of High Speed PTICs (HPTICs) by upgrading the existing VPTs to provide wide band applications like tele-education and tele-medicine based on two basic channels i.e. 128 Kbps. In the first phase by 2004, about 2 HPTICs shall be set up in each SDCA. Both capital and operational costs will be taken into account to determine the quantum of support from USF.*



b) Stream-II:

Provision of household telephones in Net High cost areas (rural/ remote). For Stream II, the cost of service in the SDCA's will comprise the capital recovery and operating expenses in respect of the access network, developed for DELs installed after the specified date. Per Line net cost will be worked out on the basis of SDCA average. At the beginning of each Financial Year, the service providers would indicate their SDCA-wise roll out plan including projected cost and revenue. The rural SDCA as per list issued by Department of Telecommunication shall be treated as rural SDCA for this purpose. The subsidy will be automatically withdrawn as soon as any SDCA's net cost becomes zero i.e, it becomes a revenue surplus area."

2.2 Expansion of Telephone Network

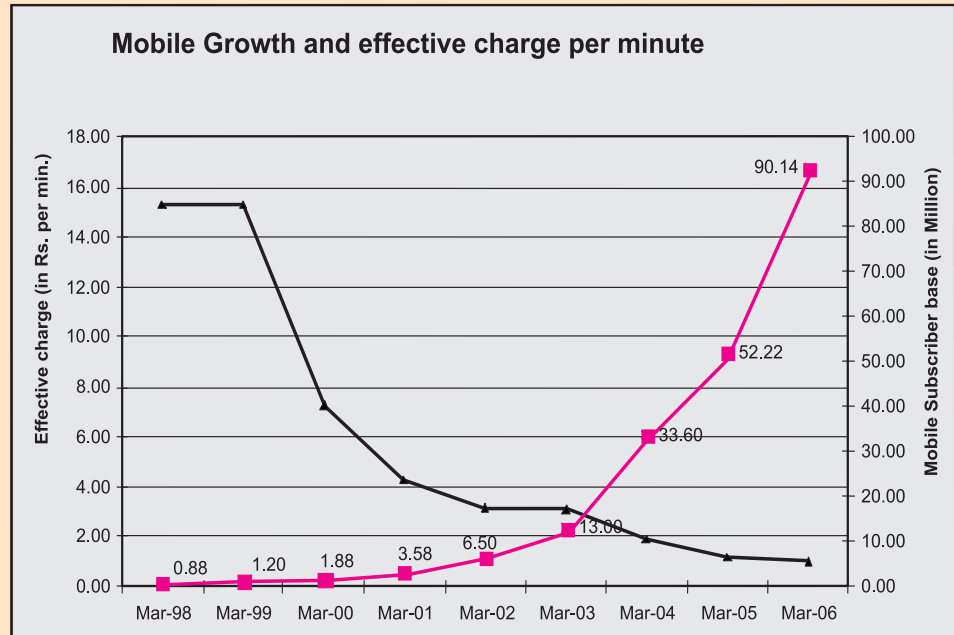
21. For the growth of wireless services, spectrum is the most vital and scarce inputs and its inadequacy may not only hamper the growth but also adversely affect the quality of service. TRAI in its Recommendations on Spectrum related issues dated 13th May, 2005 has emphasized the need of ensuring availability of additional spectrum for growth of mobile services. Further, keeping in view the objectives of growth, affordability, penetration of mobile services in semi urban and rural areas, TRAI recommended that the spectrum charges should be kept low to encourage the network operators to increase their investment in their networks so as to increase the coverage of mobile services in semi-urban and rural areas where the margins will be considerably lower. Further, considering the fact that the revenue share regime would be beneficial for the operators especially in the initial phase of network roll-out, the Authority recommended that the existing ceiling on annual spectrum charges of 6% of Adjusted Gross Revenue (AGR) should be brought down to 4% of AGR to reduce input costs.



22. It was also noted that more than 700 million people live in rural areas in India and in spite of success of telecom sector, there is a lot of gap between urban tele-density (38%) and rural tele-density (2%). Keeping this aspect in mind, TRAI last year undertook wide consultations with the stakeholders to identify the reasons of such a wide digital divide and also to explore new cost effective methods to bridge this gap. Based on the comments received during the consultation process and its own analysis, TRAI submitted its recommendation on Growth of Telecom Services in Rural India to the Government. The main thrust in these recommendations is that the focus has to be on network infrastructure expansion rather than individual telephones or public telephones.
23. The year 2005-06 witnessed a phenomenal growth in mobile services with an addition of 37.92 million subscribers in the country recording an annual growth rate of 72.62% over the previous year. The total number of mobile subscribers as on 31st March, 2006 stood at 90.14 million as against the subscriber base of 52.22 million at the end of March, 2005. This has largely been driven by competitive pressures among the mobile service providers, regulatory initiatives and technological advancements. The competitive pressures also made the service providers more innovative in their tariff offerings. Products like "Two year validity pre-paid coupons" and "Life-time Validity" schemes launched towards the end of the year have made the telecom services more affordable and also led to large scale subscriber acquisitions. The rapid decline in tariffs may be seen in Figure 2.2 below. The figure also demonstrates the strong linkage between the lowering of tariffs and growth in subscriber base of cellular mobile services.



Figure 2.2 : Decline in Cellular Tariff and Growth in Cellular Subscriber Base, March, 1998 to March, 2006



2.3 Entry of Private Sector in Basic and Value Added Services

24. TRAI has provided recommendations for entry of new operators in several telecom segments such as Basic Services, Cellular Mobile Services, National Long Distance Service, VSAT, PMRTS and GMPCS. The focus has been on facilitating entry and operations, as well as expansion of the scope of services of the various service providers. By the end of 31st March, 2006, apart from BSNL and MTNL, the Basic Services sector had five licensed private operators in the different telecom circles. All these five private operators had since migrated to Unified Access Service Regime during the 2003-04. During the previous year, M/s Reliance and M/s Bharti had acquired license for offering cellular mobile services in all 23 service areas and both the service providers are presently providing cellular service in the whole country.

25. To supplement the various recommendations which facilitate entry and competition in telecom sector, the Authority has



maintained a tariff framework which allows price competition to be fully reflected in the market. In all its activities, the effort of the TRAI has been to prepare a good ground for attracting efficient service providers and for the customers to benefit from competition among them.

2.4 Technical Compatibility and Effective Interconnection between Service Providers

26. Interconnection has been one of the most pressing issues before TRAI and several of these issues were resolved proactively using the available regulatory tools. TRAI had issued several directions, determinations and regulations to facilitate interconnection.
27. On 24th January, 2003, TRAI issued the Telecommunication Interconnection Usage Charges (IUC) Regulation. This Regulation has established a framework of the Interconnection Usage Charge (IUC) Regime. As per the Regulation, IUC is to be determined based on minutes of usage of various Unbundled Network Elements and the cost of these elements. The IUCs for Origination, Transit/ Carriage and Termination are based on the principles of element based charging, i.e., one operator charging the other for the resources consumed for carriage of its calls in terms of minutes of usage. The IUC Regime also established an Access Deficit Charge (ADC) mechanism that would fund the deficits accruing on account of fixed lines rentals being below cost and provisioning of free calls and certain below cost local calls by BSOs providing fixed lines.
28. Further, TRAI issued the Telecommunication Interconnection Usage Charges Regulation, 2003 dated 29th October, 2003 which supercedes the earlier Regulation dated 24th January, 2003. This IUC Regulation was effective from 1st February, 2004 and it covers arrangements among service providers for payment of Interconnection Usage Charges for telecommunication services covering Basic Services that include WLL (M) service, Cellular Mobile Service, and Long Distance Service (STD/ISD) throughout the territory of India. The main features of this



IUC regime were lower Access Deficit Charges (ADC), uniform termination charges of Rs. 0.30 per minute irrespective of terminating network, reduction of ADC on National Long Distance (NLD) and International Long Distance (ILD) calls, all of which resulted into lower tariff environment in voice telephony. In the October, 2003 Regulation, it was mentioned that in the subsequent years, the Authority would review both the size of the ADC payments as well as the beneficiaries of the ADC regime.

29. Continuing its exercise for review of IUC/ADC regime, TRAI issued the Telecommunication Interconnection Usage Charges (Fourth Amendment) Regulation on 6th January, 2005. This regulation was effective from 1st February, 2005. Under this regulation, the ADC rates have been significantly reduced for Inter-circle Calls and International Long Distance Calls which led to substantial reduction in tariff for NLD and ILD calls.
30. The Authority had mentioned in its IUC Regulation dated 6th January 2005 that it will address a number of issues through a Consultation Paper. The Authority, accordingly, released a Consultation Paper on 17th March, 2005 which addressed a wide range of issues, including (a) Justification of ADC on Fixed Wireless Lines and admissibility of ADC for non-BSNL Fixed Line Operators, (b) ADC as Percentage of Revenue, and its various variants including mixed models, higher ADC on NLD and ILD calls etc., (c) Interconnection Usage Charges (Carriage and Termination issues) including those for Incoming International calls, and whether to have differential rates for carriage and termination, and (d) Implications of increasing disbursement of USO Fund on the quantum of ADC payable. On the basis of the responses received during the Open House Sessions as well as the comments received from the stakeholders and its own analysis, TRAI issued the new IUC Regulation on 23.02.2006 which came into effect from 1st March, 2006. The salient features of this regulation are as follows:-



- (i) ADC on International Long Distance traffic shall continue to be on per minute basis but at a reduced rate of Rs 1.60/minute (more than 50% reduction) for Incoming International calls, this in turn will reduce arbitrage and hence grey market. ADC on outgoing international calls have been reduced to Rs.0.80/minute (reduction more than 65%).
- (ii) All licensees of Unified Access Service, Cellular Mobile Telephone Service, National Long Distance Service and International Long Distance Service shall pay 1.5% of their AGR as ADC to the BSNL. BSNL will retain ADC chargeable as percentage of its AGR. Unified Access Service Licensee/BSOs will retain ADC as percentage of AGR of wireline subscribers and the balance shall be paid to the BSNL.
- (iii) For estimation of ADC as a percentage of AGR of access providers, the revenue from the rural wireline subscribers shall be subtracted.
- (iv) The UASLs /BSOs other than BSNL would retain ADC in terms of percentage of AGR and also on outgoing international calls from their wireline subscribers.
- (v) There will not be any ADC on per minute basis on domestic calls.
- (vi) The total amount of ADC was reduced to Rs.3335 crore and estimated ADC for BSNL would be Rs. 3,200 crore. This resulted into substantial reduction (about 33%) in the amount of ADC.
- (vii) No change in mobile and fixed termination charges from the existing level of Rs.0.30 per minute.
- (viii) Death of distance acknowledged by moving over to a ceiling carriage of Rs. 0.65/minute irrespective of distance.



31. It may be seen from the above that TRAI has fixed the ceiling on carriage charges per minute for Long Distance Calls within India at Rs. 0.65 per minute irrespective of the distance with a view to promote lower domestic prices and to give a greater impetus to subscriber growth. Prior to this regulation, the carriage charges were distance based (i.e., Rs.0.20 for distance up to 50 kms., Rs. 0.45 for 200 kms., Rs.0.50 for 500 kms., and Rs.1.20 for above 500 kms.)

32. On 8th June, 2005, TRAI issued Transit Charges for BSNL's CellOne Terminating Traffic Regulation, 2005 which came into force from 3rd May, 2005 in compliance with the Hon'ble TDSAT's order dated 3rd May, 2005 in Petition No.20/2004 (COAI & Ors.Vs BSNL & Ors). As per this regulation, no transit charges shall be levied by BSNL on cellular operators for accessing BSNL's CellOne subscribers wherever the Mobile Switching Centres (MSCs) of both BSNL's CellOne and private CMSPs are connected to the same BSNL switch. Background of this regulation was that there had been no direct connectivity between BSNL Cellular and other private CMSPs and the traffic terminating in BSNL's Cellone network was being routed through BSNL's PSTN switch and was being charged @19 paise per minute.

33. During the year 2005-06, issues relating to interconnection were also taken up by TRAI. It was brought to the notice of the Authority that some service providers were either not providing interconnection or unnecessarily delaying the request of Interconnection. Unavailability of Interconnection between networks of service providers was resulting in non-completion of calls, which was causing disruption of service and inconvenience to the subscribers of the network of both the interconnecting operators, and deterioration in the quality of service provided by the service providers. In order to ensure compliance of the terms and conditions of licence and effective interconnection between service providers and to protect consumer interests, TRAI, after examining the issue in the light of various clauses of different licence agreements and in



exercise of the powers vested in it under section 13 read with section 11(1) (b) of the TRAI Act 1997, issued a Direction on 7th June, 2005 directing all service providers to provide Interconnection on the request of the interconnection seeker within 90 days of the payment made by the seeker. All the service providers were also directed to furnish compliance reports by the stipulated dates. However, this direction of TRAI has been challenged by BSNL in the Hon'ble TDSAT and the matter is still sub judice.

2.5 Telecommunication Technology

34. TRAI follows a technology-neutral approach. It, however, aims to provide conditions under which service providers are able to adopt modern and efficient technologies and can address the constraints imposed by the legacy network and practices.

2.6 Implementation of New Telecom Policy (NTP'99)

35. New Telecom Policy, 1999 (NTP-99) has provided TRAI with the requisite policy framework envisaged by the Government. It provides for the Government to seek the recommendations of TRAI for opening up the various telecom sectors and for development and implementation of a policy on the USO. Accordingly, on the request of the Government, TRAI provided its recommendations on a number of issues, which include:

- Issues relating to cellular mobile service
- Licensing of Basic Service Providers
- Licensing of National Long Distance service
- Filling up of vacant slots of cellular mobile telephone service license
- Universal Service Obligations (USO)
- License fee for Radio Paging Service (RPS)
- Issue of fresh Licences for Radio Paging Service



- INSAT MSS Reporting Service
- Issue of fresh licenses for VSAT service providers
- Licensing issues related to Public Mobile Radio Trunked Services
- Cellular Mobile Service Providers (CMSPs)- induction of fourth operator.
- Provision of mobile community phone services
- Voice Mail/ Audiotex Services
- Introduction of internet telephony
- Unified messaging service
- Unified Licensing Access Regime
- Intra-circle Mergers and Acquisitions
- Waiving off of License Fee and Bank Guarantee for Infrastructure Providers- II (IP-II)
- Accelerating Growth of Internet and Broadband Penetration
- Establishment of the Office of Ombudsman in the Telecom Sector
- Fully Unified Licensing Regime for all telecom services
- Spectrum related issues
- Growth of Telecom Services in Rural India
- Telephone Directory and Directory Enquiry Services
- Mobile Number Portability
- Next Generation Networks
- Virtual Private Network (VPN)
- Transition from IPv4 to IPv6 in India



2.7 Quality of Service

36. TRAI is mandated to lay down the parameters of quality of service to be provided by the various service providers and to ensure the quality of service. Accordingly, in July, 2000, TRAI issued a Regulation on Quality of Service for Basic and Cellular Services. In this regulation, TRAI had prescribed the QoS parameters to be achieved in the short term of before the end of 12 months, intermediate term of before the end of 24 months and long term of before the end of 48 months.
37. Since the long term periods set for achieving the Quality of Service Benchmarks in TRAI's Regulation dated 5th July, 2000 (i.e., 36 months for Cellular Mobile Service and 48 months for Basic Services) were already over and various technological developments necessitated change in the QoS parameters, the Authority issued a Consultation Paper on the various issues relating to quality of service on 22nd February, 2005 and held an Open House Session on 6.5.2005. On the basis of the comments received and its own analysis, TRAI reviewed the quality of service parameters and a revised Regulation on Quality of Service for Basic and Cellular Mobile Services was issued on 1st July, 2005. Through this regulation, TRAI has prescribed some new parameters for extensive monitoring of the cellular mobile network conditions and also to monitor responsiveness of the customer helplines of all operators. The Regulation includes network related parameters, and also parameters on customer perception of service to be assessed through customer satisfaction survey. The Authority also decided that the parameters for basic service using wireless should be the same as that of cellular mobile service.
38. TRAI is also monitoring the performance of mobile and basic service providers through quarterly performance monitoring reports vis-à-vis the QoS parameters laid down in the revised Regulation on Quality of Service. Wherever the performance of operators had been below the prescribed benchmarks, the issues were taken up with the concerned service providers to address them. Apart from quarterly reports, TRAI has engaged



an independent specialized agency, namely, M/s TUV South Asia Pvt. Ltd., for assessment of the quality of services (QoS) provided by the Basic and Cellular service providers for the period January, 2006 to December, 2006, and also to undertake a subjective survey of the perception of consumers on the quality of service provided by the basic and cellular service providers. TRAI publishes the results of this survey on a quarterly basis for information of the public. TRAI has also notified a Regulation on Quality of Service of Dial-up and Leased Line Internet Access Service in December, 2001 fixing benchmarks for Internet Dial-up Access. ISPs are required to comply with the benchmarks as per this regulation.

39. TRAI has been regularly receiving billing related complaints particularly from mobile subscribers. The QoS survey conducted by M/s IMRB had also pointed that the compliance to the billing parameter is far below the QoS norms. TRAI undertook a sample audit of the billing system of the mobile operators. The auditing of the billing systems of mobile operators revealed that while the billing systems being used by various operators are comparable to other systems being deployed by major international players, some of the processes/ procedures being followed by the mobile operators lead to customer complaints and the attendant customer dissatisfaction. The Authority, therefore, in order to bring standardization and transparency in the procedures being followed by various operators, issued a Regulation on Code of Practice for Metering and Billing Accuracy on 21.03.06. The salient features of this Regulation are :

- Before a customer is enrolled as a subscriber of any telecommunication service, he shall be provided in advance with detailed information relating to the tariff for using that service. Further, the service provider shall inform the customer in writing, within a week of activation of service, the complete details of his tariff plan.
- Where a value-added service (e.g. download of content, such as a film clip or ring tone) or entry to an interactive



service (such as a game) can be selected through a choice of the service user (e.g. by dialing a specific number) then the charge for the service must be provided to the customer before he commits to use the service.

- The services provided to the customer and all subsequent changes therein shall be those agreed with him in writing prior to providing the service or changing its provisions.
- Customer has reasonable time to take preventive action to avoid restriction or cessation of service.
- The Authority shall notify a panel of Agencies capable for auditing the billing system and to certify the Metering and Billing System of service providers. The service providers shall arrange audit of their Metering and Billing System in compliance with this Regulation on an annual basis through any one of the auditors as may be notified by the Authority and an audit certificate thereof shall be furnished to the Authority before 30th June of every year.

2.8 Measures to Protect the Interests of the Consumers

40. TRAI holds half yearly meetings with the registered consumer organizations for better understanding of the problems of consumers across the country, as provided in the Regulation. In order to acquaint the consumer organizations about various developments in the telecom sector, TRAI also invites them to seminars, workshops and conferences on telecommunication issues. Such exposures help them build their capacity and develop consumer advocacy skills.
41. One important development resulting from the various consultations TRAI had with the NGOs/Consumer Advocacy Groups and telecom service providers, was finalization of a common charter for adoption by all Telecom service providers. The common charter is a written voluntary declaration by the service providers about the various dimensions of service. It



is an open invitation to the consumers to demand quality of service. The charter would be reviewed and upgraded at regular intervals to match the changing expectations of the consumers. TRAI is of the opinion that adherence to the Charter by the service providers will help protection of consumer interests as envisaged in the TRAI Act. The salient features of the Common Charter are indicated below:

- ❖ Acknowledgement by the Service Providers about the rights of the citizens to have free choice in selecting their Service Providers,
- ❖ Agreement on the part of the Service Providers to promote consumers' right to education, representation and redress,
- ❖ Agreement by the service providers to inform the subscribers of the broad range of services, individual plans, tariff rates applicable to each of these plans, their validity, terms and conditions of payments, etc.
- ❖ Agreement to inform the subscribers about the organizational structure of the service providers and also the information and clarification on consumer redress systems for complaints and billing disputes,
- ❖ Provision of basic telephone connection within 7 days and mobile connection immediately after registration, subject to technical feasibility and compliance of all required formalities by the applicant,
- ❖ Repair of faults within 24 hours, wherever technically feasible,
- ❖ Allowing emergency services like police, fire and ambulance for a period of 15 days even after the telephone connection is suspended, if technically feasible,



- ❖ Supply of information on directory services,
- ❖ Provision of satisfactory connectivity and interconnectivity to the extent of their respective legal obligations under relevant interconnection agreement,
- ❖ Agreement on the part of the consumers to clear all dues within the specified time.

42. During the year 2005-06, TRAI took several steps to protect the interests of the consumers. With a view to curb the practice of misleading advertisements on tariff and to bring in more transparency for customers, the Authority issued a direction on 2nd May, 2005 to all access providers making it mandatory to advertise tariff in the prescribed formats. Direction was also issued on 27.06.2005 streamlining the procedure of prescribing credit limit for telecom post paid subscribers. The procedure, inter-alia, includes advance intimation of credit limit to subscribers, notice before disconnection and facility of making part-payment. Further, TRAI issued a direction on 8.7.2005 prescribing time limit (60 days) for refund of Security Deposit after disconnection of the service. The Authority also prescribed interest @ 10% for delayed payments of Security Deposit. In addition, vide a separate direction issued on 12.09.2005, TRAI mandated that no tariff plan shall be offered, presented, marketed or advertised in a manner that is likely to mislead the subscribers and all monthly fixed recurring charges which are compulsory for a subscriber under any given plan shall be shown under one head for easy understanding and comparison by subscribers.



2.9 Supreme Court Decisions

43. In the context of TRAI's powers to issue directions, an important ruling has been pronounced by the Hon'ble Supreme Court in BPL Case. As per the judgement dated 28.02.2006, the Apex Court has held that violation of TRAI's Regulations and Orders would also be covered by section 29 of the TRAI Act and would thus render the concerned service provider liable to penalty/punishment. The Hon'ble Supreme Court has

held that **“the word ‘direction’ in Section 29 had been used in a wide sense to cover orders/regulations which in effect direct an action to be taken”**. The Apex Court has observed that if we were to limit section 29 only to directions, the violation of orders/regulations would not carry any penal consequence whatsoever and as such the entire scheme of the Act would become unworkable. This decision of the Supreme Court would enable TRAI to discharge its functions more effectively.

2.10 Universal Service Obligation

44. The New Telecom Policy 1999 gives major emphasis on provision of universal services. It has defined universal service objectives as under:

- Universal service to all areas in the country including rural with special emphasis on encouraging telecommunication development in remote, hilly and tribal areas,
- Provide voice and low speed data service to the balance uncovered villages in the country by the year 2002,
- Achieve Internet access to all district headquarters by the year 2000,
- Achieve telephone on demand in urban and rural areas by 2002,
- Achieve rural tele-density of 4% by 2010

45. To achieve these objectives, NTP 1999 provides for raising resources through the imposition of an universal services levy (USL) which would be a percentage of the revenue earned by the operators under various licences. To work out the details of the universal services levy, the government sought recommendations from TRAI on the following points:



- a) class of operators to fund the USL,
- b) various possible cost models/approaches to determine:
 - Percentage contribution from revenue of the operators and the mechanism for computing it;
 - Per unit subsidy for VPTs and rural DELs separately to cover capital and recurring expenditure;
 - Whether per unit subsidy will be the same or different in different geographical areas/ tribal and non-tribal areas of the country; and
 - Per unit subsidy for low calling urban DELs.

46. TRAI submitted its recommendation on USO to the Government on 3.10.2001. The Government of India has issued USO Guidelines on 27.3.2002. As per the USO guidelines, the Universal Service Program is divided into two streams which have been mentioned in Para 20 of this Chapter. The Universal Service Fund (USF) Administrator has been appointed by the Government for disbursement of accrued funds to meet USO. The Indian Telegraph Rules, 1951, as amended on 26th March, 2004, prescribe the guidelines for (a) administration of the USO Fund, (b) scope of support from the USO Fund, (c) criteria for selection of the Universal Service Provider, (d) release of USO funds to the Universal Service Provider. TRAI is interacting with the USF Administrator in the implementation of USO. It also participates and contributes in Inter-Ministerial Advisory Committee on USO.



2.11 Initiatives of TRAI in Cable Television Services & Broadcasting Services

a. Recommendations relating to Broadcasting & Cable Television Services

47. During 2005-06, TRAI submitted following recommendations to the Government on issues relating to Broadcasting and Cable Services. These recommendations are :

- (a) Recommendation on Issues Relating to Satellite Radio Services
- (b) Recommendation on Issues Relating to Private Terrestrial TV Broadcast Service
- (c) Recommendation on Digitalisation of Cable Television
- (d) Recommendation on Issues Relating to Convergence and Competition in Broadcasting & Cable Services

Details of these recommendations have been indicated in Part-III of this Report.

b. Price Regulation of Cable Services

48. Vide Telecommunication (Broadcasting & Cable) Service Tariff (Second) Order, 2004 dated 1st October, 2004, the Authority decided that pay channels launched after 26.12.2003 should not be allowed to become part of the bouquet of channels being provided on 26.12.2003. Similar rules were also made applicable for those channels that were free-to-air on 26.12.2003 and later converted to pay. The order retained the price ceilings as on 26/12/2003. This tariff order was issued as a self-contained order replacing the earlier tariff order issued on 15.1.2004 and all its amendments / clarifications. An amendment to the above Order dated 1st October, 2004 was issued on 26.10.2004 whereby it was provided that if a broadcaster reduces the number of channels in a bouquet, the ceiling charges of the bouquet will get reduced. The tariff order dated 1/10/2004 provided, inter- alia, that the ceiling cable charges shall be reviewed periodically to make adjustments for inflations.

49. On 7th November, 2005, TRAI released a Consultation paper on Proposal for Amendment to the Tariff Order of 1.10.2004 on Broadcast and Cable Television Services. The consultation paper sought inputs on the following major issues:



- Whether all new channels be provided as separate individual channels?
- Whether the prices charged by broadcasters to the MSOs for channels/bouquets launched after 26.12.2003 should be frozen at the levels at which they were introduced with an annual increase in inflation?
- Whether there is a need to provide for benchmarks in the tariff order for determining similarity in rates of similar channels and what can be the method for arriving at these benchmarks and what should be the criterion for determining similarity of channels?
- What should be the approach in case an existing pay channel changes from one distributor to another and what would be the changes that may be required in the tariff order?
- Whether the prices charged by the broadcasters from the MSOs should be released for public information by TRAI as and when there are changes in the prices being charged?
- Whether TRAI should move towards pricing of individual channels so that the consumers through the cable operators exercise wider choice regarding channels in a non-CAS environment?

Open House Discussions on the above consultation paper were held in January, 2006. On the basis of the comments received from the stakeholders and its own analysis, TRAI is in the process of reviewing the Tariff Order.

c. Regulation on Inter-connection

50. After following the consultation process, TRAI issued the Telecommunication (Broadcasting and Cable Services) Interconnection Regulation dated 10th December, 2004. The regulation bans exclusive agreements for distribution of TV



channels and stipulates non-discriminatory provision of channels by broadcasters and MSOs to all distributors as well as a minimum notice period before disconnection of signals by broadcasters and MSOs. The Interconnection Regulation will help in promoting competition both within the cable industry and between cable and other platforms. This would also give consumers a choice and eventually pave the way for price deregulation. Based on the feedback received from the stakeholders, and also in view of certain new issues coming up for consideration, TRAI has issued a Consultation Paper on 21st March, 2006 to consider whether any amendment or review of the earlier Interconnection Regulation is needed.

d. Regulation on Register of Interconnection Agreements

51. For the purpose of registration of interconnect agreements entered into by Broadcasters with service providers, TRAI had notified the Register of Interconnect Agreements (Broadcasting & Cable Services) Regulation, 2004 on 31st December, 2004. An amendment to this regulation was issued on 02.12.2005 to provide for filing of interconnect agreements in electronic form on quarterly basis. A further amendment to the Register of Interconnect Agreements Regulation dated 31st December, 2004 was issued on 10.03.2006 whereby the DTH Service Providers have also been mandated to file agreements between Broadcasters and Direct to Home (DTH) Operators with TRAI. This requirement is in addition to the existing obligation on broadcasters to file their agreements entered with DTH operators.



PART-III

**FUNCTIONS OF
TELECOM REGULATORY AUTHORITY OF INDIA
IN RESPECT OF MATTERS SPECIFIED IN
SECTION 11 OF TRAI ACT**





3. FUNCTIONS OF THE TELECOM REGULATORY AUTHORITY OF INDIA IN RESPECT OF MATTERS SPECIFIED IN SECTION 11 OF THE TRAI ACT

1. The Authority, in pursuance of achieving the objectives of New Telecom Policy 1999, has notified a number of decisions on tariffs, provided its recommendations on several matters referred to it by the Government, notified its Regulation on Interconnection Usage Charges, taken action to enforce licence terms and conditions and initiated work on several issues including review of Access Deficit Charges (ADC). As a result of these, there has been a significant reduction in cellular as well as National Long Distance (NLD) and International Long Distance (ILD) tariffs, and phenomenal growth of cellular mobile subscriber base.

3.1 Telecommunication rates both within India and outside India including the rates at which messages shall be transmitted to any country outside India

2. Section 11(2) of the Telecom Regulatory Authority of India Act, 1997 as amended by TRAI (Amendment) Act, 2000, empowers the Authority to notify in the Official Gazette the rates at which telecommunication services within India and outside India shall be provided, including the rates at which the messages shall be transmitted to any country outside India. It also provides that the Authority may notify different rates for different persons or class of persons for similar telecommunication services. Besides specifying the tariff regime applicable to various services, TRAI is also required to ensure that tariff prevailing in the market are consistent with the specified tariff regime. For this purpose, the Authority monitors the rates at which the various telecom services are provided by the service providers.
3. In addition, the Government of India vide order dated 9th January, 2004 has entrusted to TRAI, the function of specifying the



standard norms for, and periodicity of revision of rates of pay channels, including interim measures. Thus, the function of specifying norms for fixation of rates for pay channels as well as fixation of tariff for cable services is also assigned to TRAI.

3.1.1 Telecommunication Tariff Orders

4. The Authority's Telecommunication Tariff Order (TTO) 1999, implemented w.e.f. 1.4.1999 has been used as an instrument to achieve regulatory goals and to promote competition in the telecom sector, providing protection to consumer interests and to serve as a trigger to promote investment. In order to protect consumer interests and ensure level playing field, the Authority made eight Amendments to TTO, 1999 during the year 2005-06. In addition, amendments to tariff orders have also been issued for broadcasting and cable services during the year. The amendments to TTO '99 as well as the tariff orders on broadcasting and cable services are listed in the Table below.

Table 3.1: Telecommunication Tariff Orders (Amendments)

	Tariff Order	Date	Subject
	1. The Telecommunication Tariff (Thirty Sixth Amendment) Order, 2005.	21.04.2005	Revised the ceiling tariff for Domestic Leased Circuits.
	2. The Telecommunication Tariff (Thirty Seventh Amendment) Order, 2005	02.05.2005	Modified Schedule-IV providing for a separate ceiling tariff for 64 kbps to 2 mbps Managed Leased Line Network (MLLN) Domestic Leased Circuits notified (as an interim measure to be reviewed within one month).
	3. The Telecommunication Tariff (Thirty Eight Amendment) Order, 2005	02.06.2005	Modified Schedule-IV fixing separate ceiling tariff for 64 kbps to 2 mbps Managed Leased Line Network (MLLN) Domestic Leased Circuits based on the details of the cost of provision of services provided by Service Providers who offer such services.
	4. The Telecommunication Tariff (Thirty Ninth Amendment) Order, 2005	08.09. 2005	Fixation of ceiling tariff for International Private Leased Circuit (Half Circuit).
	5. The Telecommunication Tariff (Fortieth Amendment) Order, 2005	16.09. 2005	39 th Amendment to TTO was kept in abeyance in compliance of TDSAT's order dated 14/09/2005 in Appeal No. 10/2005 filed by VSNL.



	Tariff Order	Date	Subject
6.	The Telecommunication Tariff (Forty First Amendment) Order, 2005	29.11. 2005	Order giving effect to Tariff Order for IPLC as specified by TRAI vide 39 th Amendment to TTO, 1999 was issued. The tariffs became effective from 29/11/2005 in view of the Order of TDSAT in Appeal No. 10/2005 on 28/11/2005.
7.	The Telecommunication (Broadcasting & Cable) Services (Second) Tariff (Third Amendment) Order, 2005	29.11.2005	4% increase in cable charges was allowed w.e.f. 01.01.2006 to cover the inflation. This order has since been stayed by the Hon'ble TDSAT.
8.	The Telecommunication Tariff (Forty Second Amendment) Order, 2006	07.03.2006	Reporting requirement in respect of tariff plans offered by telecom access providers to bulk customers revised. Such plans were also exempted from the ceiling of 25 tariff plans, which can be offered at a time by the telecom service providers.
9	The Telecommunication (Broadcasting & Cable) Services (Second) Tariff (Fourth Amendment) Order, 2006	07.03.2006	Fixation of tariff for hotels/ restaurants, etc. as an interim measure.
10	The Telecommunication Tariff (Forty Third Amendment) Order, 2006	21.03. 2006	(i) Mandated the operators to continue to provide service in respect of lifetime schemes as long as they have permission to provide such telecom service under the current license or renewed license. (ii) Protection from hike in any item of tariff during the specified validity period.
11	The Telecommunication (Broadcasting & Cable) Services (Second) Tariff (Fifth Amendment) Order, 2006	24.03.2006	Clarified that Broadcasting and Cable Services Tariff Order (Fourth Amendment) dated 07.03.2006 would be applicable to only those hotels / restaurants who are getting feed from the broadcasters, authorized MSOs/ Cable Operators



5. The Authority notified the 36th Amendment to the TTO, 1999, revising the ceiling Tariff for Domestic Bandwidth on 21/04/ 2005. The Authority fixed revised ceiling tariff for the most commonly used capacities/speed i.e. 64 kbps, 128 kbps, 256 kbps, E1 (speed of 2 Mega bits per second), DS-3 (speed of 45 Mega bits per second) and STM-1 (speed of 155 Mega bits per second). The revised ceiling tariffs in respect of DLC are summarized in the Table given below:-

Capacity / Speed	Revised Ceiling Tariff (Rs. in lakhs) for a distance more than 500 Kms
64 Kbps	0.44
128 Kbps	0.79
256 Kbps	1.36
E1 (2 Mbps)	8.50
DS-3 (45 Mbps)	62
STM-1 (155 Mbps)	165

6. TRAI notified the 37th Amendment to Telecommunication Tariff Order (TTO), 1999 fixing a ceiling tariff for 64 Kbps and N x 64 Kbps as an interim arrangement for a period of one month to take care of domestic lease circuit provided through Managed Leased Line Network (MLLN) technology.

7. The Authority notified 38th Amendment to TTO, 1999, on 2nd June 2005. In the 37th Amendment of TTO, the Authority had indicated that the interim arrangement would be reviewed within one month. Meanwhile, relevant cost information from service providers was sought with a view to specify a new ceiling tariff for 64 kbps using MLLN Technology. Accordingly, the Authority initiated the process of estimating cost based tariff for MLLN service based on the details of the cost of provision of services provided by the service providers, who offer such service. This notification was the outcome of that process.

8. The Authority vide 39th amendment of TTO dated 8th September, 2005 has fixed the ceiling tariffs for three most commonly used capacities i.e. E-1 (Speed of 2 Mega Bits Per Second), DS-3 (Speed of 45 Mega Bits Per Second) and STM-1 (Speed of 155 Mega Bits Per Second). The salient features of the tariff fixed vide this Amendment are as under:-

- The ceiling tariff of IPLC (Half Circuits) in respect of E-1, DS-3 and STM-1 capacities are Rs. 13 lakhs, Rs. 104 lakhs & Rs. 299 lakhs per annum, respectively.



- These ceiling tariffs fixed resulted in a reduction of 29%, 64% & 59% in tariffs for E-1, DS-3 and STM-1 capacities, respectively, (as compared to the existing listed price prevalent in the market for India – USA (Atlantic route).
- The prescribed ceiling tariff would be applicable for all destinations, capacities and types of cable systems used for carrying either voice or data.

9. The Authority had notified the Telecommunication Tariff (39th Amendment) Order on 8th September 2005. M/s Videsh Sanchar Nigam Limited (M/s VSNL) had challenged this tariff order in the Hon'ble TDSAT on 12th September 2005 vide Appeal No. 10/2005. TDSAT heard the case on 14/09/2005 and ordered that 39th Amendment to TTO,1999, be kept in abeyance and hence the 40th Amendment to TTO was issued.

10. The Appeal No. 10/2005 filed by M/s VSNL came up for hearing before the TDSAT on 14th September 2005. The Hon'ble TDSAT after hearing the arguments of both the Parties, vide its order dated 28.11.05 dismissed the appeal filed by VSNL and directed that the Notification (39th Amendment to TTO, 1999) be brought into effect immediately by TRAI. Hence, the 41st Amendment to TTO was issued to give effect to Tariff Order for IPLC as specified by TRAI vide 39th Amendment to TTO dated 8.9.2005. These tariffs came into effect from 29.11.2005.

11. For regulating prices in Broadcasting and Cable Services, a tariff order dated 01.10.2004 is in vogue. The first periodical review for inflationary adjustment was done vide tariff order dated 1st December, 2004 whereby an upward revision in the ceiling price for cable services by 7% was provided. A second review of the tariff order was done on 29th November, 2005 providing for 4% increase in cable charges to cover inflation. This order was to be effective from 01.01.2006. However, Hon'ble TDSAT has since stayed this order.



12. As per the existing provisions of TTO, all tariffs are required to be filed with the Authority for information and record within 7 days from the date of launch. Further, at any given point of time not more than 25 plans shall be on offer by a service provider. This includes both post-paid and pre-paid tariff plans. Following requests from the service providers and after considering their comments, TRAI notified 42nd Amendment to TTO, 1999 on 07/03/2006. Vide this Amendment, the Authority relaxed the reporting requirement and ceiling on the number of tariff plans in respect of tariff schemes offered to a bulk customer. It was felt that excluding such tariff plans from the normal reporting requirement shall have the additional benefit of allowing the Authority to focus more on monitoring tariffs for individual customers, a category that deserves greater attention. As per the revised norms, details of tariff plans meant for such bulk customers are required to be submitted to TRAI on a quarterly basis.

13. A dispute arose between hotels/ restaurants and the broadcasters as to whether a rate different from domestic cable subscribers could be charged from hotels/ restaurants. TDSAT in its order dated 17.01.2006 in the case of Hotel Association of India Vs M/s Set Discovery Private Ltd and M/s Star India Pvt. Ltd. ruled that a different rate can be charged from hotels/restaurants. TDSAT also suggested that TRAI may consider prescribing a tariff for hotels, etc. Representatives of hotels/ restaurants association approached TRAI for fixation of tariff for them. Considering all the aspects, TRAI issued a tariff order on 7th March, 2006 for fixation of tariff for hotels etc. as an interim measure.

14. TRAI notified 43rd Amendment to TTO, 1999, on 21/03/2006 laying down regulatory policy on lifetime plans and other tariff plans with longer validity period involving one time upfront payment. As per the provisions of 31st Amendment to TTO, 1999, notified on 07/07/2004, a tariff plan once offered by an Access Provider should be available to a subscriber for a minimum period of six months from the date of enrolment of the subscriber



to that tariff plan. However, the 43rd Amendment to TTO specified that any tariff plan presented, marketed or offered as valid for any prescribed period exceeding six months or as having lifetime or unlimited validity in lieu of an upfront payment shall continue to be available to the subscriber for the duration of the period as prescribed in the plan and in the case of lifetime or unlimited validity plans, as long as the Service Provider is permitted to provide such telecom service under the current license or renewed license. In the case of plans with lifetime validity or unlimited validity, the service provider shall also inform the subscribers of the month and year of expiry of his current license. While the service providers are at liberty to reduce tariff at any time, no tariff item in such tariff schemes shall be increased during the promised validity period.

15. After issuing the Fourth Amendment to the Tariff Order for Broadcasting and Cable Services dated 07.03.2006, TRAI issued the Fifth Amendment Order dated 24.03.2006 clarifying that the tariff fixed for hotels/restaurants would be applicable to only those hotels/restaurants who are getting feed from the broadcasters, authorized MSOs/Cable Operators.

3.1.2 Regulations

16. Section 11(1)(c) of the Telecom Regulatory Authority of India Act, 1997 empowers the Authority to levy fees and other charges at such rates and in respect of such services as may be determined by regulations. Further, Section 11(1)(b) of the above Act empowers the Authority to ensure technical compatibility and effective interconnection between different service providers and also to regulate arrangement amongst service providers of sharing their revenue derived from providing telecommunication services. Section 11(1)(b) of the TRAI Act also empowers the Authority to lay down the standards of quality of service to be provided by the service providers and ensure the quality of service and conduct the periodical survey of such service so as to protect the interest of the consumers. During the year 2005-2006, the Authority notified the following Regulations in pursuance of the above provisions of the TRAI Act.



Table 3.2: Regulations issued by TRAI during 2005-2006

S.No.	Regulation	Date of Notification
1.	The Telecommunication Interconnection Usage Charges (Fifth Amendment) Regulation, 2005 (7 of 2005)	11.04.2005
2.	TRAI Meetings for Transaction of Business (First Amendment) Regulation, 2005 (9 of 2005)	18.05.2005
3.	TRAI (Transit Charges for Bharat Sanchar Nigam Ltd.'s CellOne Terminating Traffic) Regulation, 2005 (10 of 2005)	08.06.2005
4.	Regulation on Quality of Service of Basic and Cellular Mobile Telephone Services, 2005 (11 of 2005)	01.07.2005
5.	The Register of Interconnect Agreements (Broadcasting and Cable Services), (Second Amendment) Regulation, 2005 (12 of 2005)	02.12.2005
6.	The Telecommunication Interconnection Usage Charges (Sixth Amendment) Regulation, 2006 (1 of 2006)	23.02.2006
7.	The Telecommunication Interconnection Usage Charges (Seventh Amendment) Regulation, 2006 (2 of 2006)	10.03.2006
8.	The Register of Interconnect Agreements (Broadcasting and Cable Services), (Third Amendment) Regulation (3 of 2006)	10.03.2006
9.	Regulation on Code of Practice for Metering and Billing Accuracy, 2006	21.03.2006
10.	The Reporting System on Accounting Separation (Fourth Amendment) Regulation, 2006	27.03.2006



The Telecommunication Interconnection Usage Charges (Fifth Amendment) Regulation, 2005 (7 of 2005) dated 11.04.2005

17. Through the above amendment, TRAI amended the Telecommunication Interconnection Usage Charges Regulation, 2003 and defined applicability of ADC on calls originated from national and international roaming subscriber in the following manner:

"All calls from the National Roaming subscribers shall be treated as Long Distance calls and all calls from International

Roaming subscribers shall be treated as incoming international call for ADC purposes. As such for all calls from National roaming subscribers while in a different Service Area, ADC charge as applicable for National Long Distance calls shall be applicable at the rate of Rs 0.30 per minute. For International Roaming Subscriber while making any call while in India, an ADC of Rs. 3.25 per minute shall be applicable. For all calls from Roaming subscriber, the access deficit amount is to be collected by the visited network operator and paid to BSNL.”

The above regulation has since been set aside by the Hon’ble TDSAT

TRAI Meetings for Transaction of Business (First Amendment) Regulation, 2005 (9 of 2005) dated 18.05.2005

18. The above regulation was issued to allow Members of the Authority to participate in Authority Meetings through videoconference as it would facilitate higher participation of members residing in distant and different places. The regulation also provided that all decisions taken by the whole-time members through circulation of files shall be included as an agenda of the Authority Meeting to be held immediately after these decisions, and all such decisions shall be confirmed during the formal meeting of the Authority.

TRAI (Transit Charges for Bharat Sanchar Nigam Ltd.’s CellOne Terminating Traffic) Regulation, 2005 dated 08.06.2005

19. The above Regulation came into force with effect from 3rd May, 2005 in compliance with the Hon’ble TDSAT’s order dated 3rd May, 2005 in Petition No.20/2004 (Cellular Operators Association of India and others Vs Bharat Sanchar Nigam Limited & others). The regulation provides that no transit charge shall be levied by BSNL on Cellular Operators for accessing BSNL’s CellOne subscribers, wherever the Mobile Switching Centres (MSCs) of both BSNL’s CellOne and Private CMSPs are connected to the same BSNL switch. The Regulation was issued as there had been no direct connectivity between BSNL Cellular



and other private CMSPs. Traffic terminating in BSNL CellOne network was being routed through BSNL's PSTN switch and was being charged @ 19 paise per minute.

Regulation on Quality of Service of Basic and Cellular Mobile Telephone Services, 2005 dated 01.07.2005

20. TRAI issued a revised Regulation on Quality of Service Parameters of Basic and Cellular Mobile Telephone Services. It was found that while an extensive attempt had been made to cover all relevant parameters and lay down benchmarks for them in the QoS Regulation, 2000, however, certain important parameters were inadvertently left out and some other parameters required review as a result of technological developments. Accordingly, a consultation paper was issued on 22nd February, 2005 on the various issues relating to quality of service, followed by Open House Session on 6th May, 2005. During the consultation process, all the stakeholders suggested that the parameters for basic service using wireless should be same as that of cellular mobile service as parameters like fault incidences, fault repair etc. are not applicable to a fixed wireless phone. At the same time, all network related parameters of mobile service would be applicable for fixed wireless terminal. The Authority, therefore, accepted the suggestion that the parameters for basic service using wireless should be same as that of cellular mobile service. After extensive deliberations, the Authority reviewed the existing parameters and introduced some new parameters in the revised QoS Regulation for Basic and Cellular Services issued on 1st July, 2005.



The Register of Interconnect Agreements (Broadcasting and Cable Services), (Second Amendment) Regulation, 2005 dated 02.12.2005

21. For the purpose of registration of Interconnect Agreements entered into by Broadcasters with the service providers, TRAI

notified a regulation on Register of Interconnect Agreements on 31.12.2004. An amendment to this regulation was issued on 02.12.2005 to provide for filing of the interconnect agreements in electronic form on quarterly basis.

The Telecommunication Interconnection Usage Charges (Sixth Amendment) Regulation, 2006 dated 23.02.2006

22. The Authority undertook another review of IUC/ADC and for this purpose released a Consultation Paper on 17th March, 2005 addressing a wide range of issues. Based on comments and inputs received from the stakeholders, the Authority issued the IUC regulation on 23.2.2006, effective from 1st March, 2006. The salient features of this regulation are as follows:
- (i) ADC on International Long Distance traffic shall continue to be on per minute basis but at a reduced rate of Rs 1.60/minute (more than 50% reduction) for Incoming International calls to reduce arbitrage and hence grey market. ADC on outgoing international calls has also been reduced to Rs.0.80/minute (reduction of more than 65%).
 - (ii) All licensees of Unified Access Service, Cellular Mobile Telephone Service, National Long Distance Service and International Long Distance Service shall pay 1.5% of their AGR as ADC to the BSNL. BSNL will retain ADC chargeable as percentage of its AGR. Unified Access Service Licensee/BSOs will retain ADC as percentage of AGR of wireline subscribers and the balance shall be paid to the BSNL.
 - (iii) For estimation of ADC as a percentage of AGR of access providers, the revenue from the rural wireline subscribers will not be included.
 - (iv) The UASLs /BSOs other than BSNL would retain ADC in terms of percentage of AGR and also on outgoing international calls from their wireline subscribers.
 - (v) There will not be any ADC on per minute basis on domestic calls.



- (vi) The total amount of ADC was reduced to Rs.3335 crore and estimated ADC for BSNL would be Rs. 3,200 crore. This would translate into reduction of ADC by about 33%.
- (vii) No change in mobile and fixed termination charges from the existing level of Rs.0.30 per minute.
- (viii) Death of distance acknowledged by moving over to a ceiling carriage of Rs. 0.65/minute irrespective of distance.

The Telecommunication Interconnection Usage Charges (Seventh Amendment) Regulation, 2006 dated 10.03.2006

- 23. On clarification sought by the operators as to whether the IUC Regulation dated 23rd February, 2006 would apply to mobile subscribers also, the Authority clarified that this would be limited to fixed wireline only. As mentioned in IUC Regulation dated 23rd February 2006, there is an overlap between USO and ADC. The definition of rural cellular subscriber based on the address may lead to confusion and uncertainty in the market as far as deduction of revenue from rural cellular subscribers is concerned. Keeping this in view as well as the aspect that ultimately ADC also has to merge with USOF, Authority decided that only revenue from rural fixed wireline subscribers shall be excluded for calculation of ADC in terms of percentage of AGR. Revenue from fixed wireless rural subscribers is not to be excluded from AGR for calculation of ADC in terms of percentage of AGR.



The Register of Interconnect Agreements (Broadcasting and Cable Services), (Third Amendment) Regulation dated 10.03.2006

- 24. For the purpose of registration of Interconnect Agreements entered into by Broadcasters with the service providers, TRAI notified a regulation on Register of Interconnect Agreements on 31.12.2004. An amendment to this regulation was issued on 10.03.2006 to provide that DTH service providers will file

the agreements entered between broadcasters and Direct to Home Operators. This requirement is in addition to the existing obligation on broadcasters to file their agreements entered with DTH operators.

Regulation on Code of Practice for Metering and Billing Accuracy, 2006 dated 21.03.2006

25. TRAI had been receiving complaints on billing related matters. TRAI undertook a sample audit of the billing system of the mobile operators. The auditing revealed that while the billing systems being used by various operators are comparable to other systems being deployed by major international players, some of the processes/ procedures being followed by the mobile operators lead to customer complaints and the attendant customer dissatisfaction. As a measure to bring standardization and transparency in the procedures being followed by various operators, the Authority issued a Regulation on Code of Practice for Metering and Billing Accuracy on 21.03.06. Its salient features are :

- Before a customer is enrolled as a subscriber of any telecommunication service, he shall be provided in advance with detailed information relating to the tariff for using that service. Further, the service provider shall inform the customer in writing, within a week of activation of service, the complete details of his tariff plan.
- Where a value-added service (e.g. download of content, such as a film clip or ring tone) or entry to an interactive service (such as a game) can be selected through a choice of the service user (e.g. by dialing a specific number) then the charge for the service must be provided to the customer before he commits to use the service.
- The services provided to the customer and all subsequent changes therein shall be those agreed with him in writing prior to providing the service or changing its provisions.



- Customer has reasonable time to take preventive action to avoid restriction or cessation of service.
- The Authority shall notify a panel of agencies capable for auditing the billing system and to certify the metering and billing system of service providers. The service providers shall arrange audit of their metering and billing system in compliance with this Regulation on an annual basis through any one of the auditors as may be notified by the Authority and an audit certificate thereof shall be furnished to the Authority by 30th June of every year.

The Reporting System on Accounting Separation (Fourth Amendment) Regulation, 2006 dated 27.03.2006

26. The Authority reviewed the implementation of the Reporting System on Accounting Separation Regulation, 2004 and found that many small operators were unable to comply with this Regulation. The Authority, therefore, decided to amend the Regulation so as to make this applicable to only those service providers who have a minimum turnover of Rs. 25 crore for the preceding financial year.

27. The rationale behind this decision was that small/standalone operators providing single product/network service were unable to bear the burden of costs for preparing accounting separation reports. The Authority noted that since most service providers with low turnovers were providing services like PMRTS, Internet, Radio paging, etc. for which tariffs were forborne and that their reports would not be of great relevance. Therefore, Authority decided vide the above Amendment dated 27th March, 2006 that the Accounting Separation Regulation will be applicable to only those service providers who have a minimum turnover of Rs. 25 crore for the preceding financial year. The Authority also decided that service providers except Access providers, NLDOs and ILDOs be exempted from the requirement of preparing Accounting Separation Reports based on Replacement Cost Accounting as the Authority is presently regulating only



IUC and few tariffs like IPLC & DLC for which reports based on replacement cost for services other than access providers, NLDOs and ILDOs, may not be required in the near future.

3.1.3 Monitoring of Tariff

28. The Telecommunication Tariff Order (TTO), 1999, makes it mandatory for the service providers to report to the Authority all new tariff plans and changes made to the existing tariff plans within seven days from the date of implementation. The tariff reports received from the telecom service providers are scrutinized carefully to check for their consistency with the provisions of TTO, 1999 and other Regulatory prescriptions. The service providers are also required to submit quarterly report on revenue and existing tariff plans. The availability of these reports are a valuable input for framing regulatory policies.
29. Scrutiny of tariff plans reported to the Authority indicated that the operators were offering differential tariff for calls terminated in their own network. As per the provisions of 33rd Amendment to TTO, 1999, such differential tariffs were permissible. However, following representations from the stakeholders, the Authority initiated a consultation process in the month of January, 2006 with a view to review the guidelines on differential tariffs for on-network calls. This was followed by Open House Discussions. The Authority after careful consideration decided to continue with the existing arrangement and revisit the matter after six months on the basis of the feedback to be received from the service providers.

3.1.4 Other Tariff Related Matters

30. The Authority issued a direction on 2nd May, 2005 mandating revised formats for publication of tariff to facilitate consumers to make an informed choice to subscribe to a particular plan and also to discourage deceptive advertisements.
31. Authority was also informed about the inconvenience caused to the customers due to sudden and abrupt disconnection of



service on the ground of their usage having exceeded the credit limit. In order to address this issue, a direction was issued on 27/06/2005 prescribing guidelines on credit limit for the post-paid subscribers. It was made mandatory for the service providers to intimate the subscribers in advance on reaching 80% of the credit limit and the manner in which the credit limit set for an individual subscriber could be enhanced. This direction of the Authority will ensure uninterrupted service to the subscribers.

32. On 18th July, 2005, another direction was issued by Authority mandating refund of security deposit within 60 days from the date of disconnection of service after adjustment of dues. Failure on the part of the service provider would make them liable to pay an interest @ 10% per-annum to the subscriber for the delay beyond the stipulated date.
33. The Authority also issued a direction on 16th September, 2005 regarding tariff plans with misleading titles. Through this direction, the service providers were enjoined not to offer, present, market or advertise any tariff plan that is likely to mislead the subscribers. Service providers were also asked to indicate all monthly fixed recurring charges which are compulsory for a subscriber under any given plan under one head.
34. The Authority observed that mobile operators hiked tariffs for certain items such as CLIP charges even within the six months of enrolment of a subscriber in a particular tariff plan, which was against the provisions of the Telecommunications Tariff Order 1999. The Authority issued a direction for refunding excess amount to the subscribers.
35. The Authority also observed that mobile operators were forfeiting the unused balance talk time of the pre-paid subscribers who migrated to the recently launched tariff plans with lifetime validity. Forfeiting of such unused balance talk time by CDMA operators while migrating the subscribers to the tariff plans with lifetime validity was against the provisions of the Telecommunications Tariff Order 1999. The Authority issued a



direction and got the balance talk time refunded/ carried forward to the affected subscribers.

3.2 Recommendations on the need and timing for introduction of new service providers and the terms and conditions of licence to a new service provider

36. Under Section 11(1)(a) of the Telecom Regulatory Authority of India Act, 1997, the Authority is required to make recommendations either suo- moto or on a request from the licensor, i.e., Department of Telecommunications or the Ministry of Information and Broadcasting in the case of broadcasting and cable services. In 2005-2006 following Recommendations were made by the Authority to the Government:

Table 3.3: List of Recommendations made by the Authority during the period 2005-06

Sl. No.	Title	Date of Issue	Status as on 31/3/2006
1.	Recommendations on Publication of Telephone Directory and Directory Enquiry Services	05.05 2005	Pending
2.	Recommendations on Spectrum related Issues	13.05.2005	Pending
3.	Recommendations on Issues related to Satellite Radio Services	27.06.2005	Pending
4.	Recommendations on Issues related to Virtual Private Network (VPN)	16.08.2005	Pending
5.	Recommendations on Issues relating to Private Terrestrial TV Broadcast Service	29.08.2005	Pending
6.	Recommendations on Digitalization of Cable Television	14.09.2005	Pending
7.	Recommendations on Growth of Telecom Services in Rural India	03.10.2005	Pending
8.	Recommendations for review of Broadband Policy reiterating TRAI's recommendations pertaining to Local Loop Unbundling & fiscal incentives for Broadband	03.11.2005	Pending
9.	Recommendations on Promotion of Competition in International Private Leased Circuit (IPLC) Segment	16.12.2005	Pending



10.	Recommendations on Transition from Ipv4 to Ipv6 in India	09.01.2006	Pending
11.	Recommendations for permitting usage of strings containing #, \$, £, etc. for accessing High Speed Data Services in Wireless Networks	08.03.2006	*Pending
12.	Recommendations on Mobile Number Portability	08.03.2006	Pending
13.	Recommendations on Next Generation Networks	20.03.2006	Pending
14.	Recommendations on Issues relating to Convergence and Competition in Broadcasting and Telecommunications	20.03.2006	Pending

* Recommendation has since been accepted by the Government in May, 2006

A. Recommendations on Publication of Telephone Directory and Directory Enquiry Services

37. Directory services are general public utility services. However, the Telephone Directory is presently available only for the fixed line customers of BSNL and MTNL. Also, only these public sector units provide the directory enquiry service. The mobile customers currently do not have the facility of telephone directory and directory enquiry services. The various license agreements issued by the Government for basic service, cellular mobile service and unified access service have provisions relating to publication of telephone directory and directory enquiry services. The Authority therefore undertook public consultation on the issue of publication of telephone directory and directory enquiry services and a consultation paper in this regard was issued on 20th August, 2004 and Open House Sessions were held in Bangalore and Delhi in December, 2004. The comments received from stakeholders favoured publication of integrated telephone directory and provision of integrated directory enquiry services through an independent operator. Keeping in view the comments received from stakeholders, TRAI submitted its recommendation to the Government on 5th May, 2005.



The main recommendations are:

- All license agreements for access service should have uniform provisions for publication of telephone directory and directory enquiry services either by the licensee or through another licensed operator and/or directory enquiry service provider.
- There should be an integrated telephone directory for fixed line customers at LDCA level, covering the fixed line customers of all Basic Service Operators (BSOs)/Unified Access Service Providers (UASPs). The incumbent operators i.e. BSNL and MTNL shall publish the printed integrated telecom directory of fixed line customers and other operators shall compensate the incumbent towards the cost of publication of the integrated directory, based on their number of entries.
- If a fixed line subscriber does not wish to be listed in the directory, his name shall be excluded from the directory after taking consent of the subscriber in writing.
- For mobile service also, though an integrated directory of all mobile customers at circle level is ideal, but presently it may not be possible to do it immediately. Therefore, in the meantime, each cellular operator shall individually publish telephone directory of its customers at circle level.
- The cellular mobile directory should contain entries of only those customers who have explicitly given their consent. Pre-paid customers shall be excluded from the printed directory.
- Issues relating to privacy and unwanted telemarketing calls could be addressed through the provision of exclusion of the numbers of those customers who do not want their telephone numbers listed in the directory services and through appropriate legislative and other measures.



- In addition to printed telephone directory, all the service providers have to provide directory services through the web. In the case of cellular service, directory services through the web shall also contain pre-paid customers who have given their consent in writing or through e-mail or SMS. The cellular operators can, in lieu of maintaining the directory on the web, have the option of providing Directory Services through the handset.
- The periodicity of publication of the printed directory should be annual, with the main directory published in the first year followed by two supplementary directories. The directory may be divided into business and residential portions in large LDCAs.
- The provisions in Rules 452 to 459 of the Indian Telegraph Rules, 1951 relating to "Telephone Directories" may be reviewed and these Rules may be amended and modified so as to be in line with the present licensing and regulatory regime.

B. Recommendations on Spectrum Related Issues

38. Considering the objectives of Government viz. target of 200 million mobile phones by 2007, adequate spectrum to operators to permit longer term spectrally efficient planning, reduced input costs for telecom services so as to increase coverage in semi-urban and rural areas and ensuring roll out of 3G services, TRAI on 13th May, 2005 gave its recommendations on spectrum related issues. The salient features of the recommendations are as follows:

- Existing ceiling on annual spectrum charges of 6% AGR should be brought down to 4% of AGR.
- Partial mitigation of spectrum constraints through introduction of services in IMT-2000 spectrum.
- IMT-2000 2GHz spectrum allocation to the existing operators as extension of 2G spectrum allocation with no one time entry fee but an additional annual per MHz



charge till service provider rolls out IMT-2000 services. Cancellation of this additional spectrum if IMT-2000 (3G) services are not rolled out within 2 years from the date of allocation of spectrum.

- Before we consider allocating spectrum to new service providers, it is necessary to ensure that the existing service providers have adequate spectrum. Based on these considerations, it was recommended that the government should allocate available spectrum in service areas where there is adequate competition i.e. where HHI is 0.35 or below, and allot spectrum to operators, based on the revised spectrum allocation criteria.
- Spectrum charging for terrestrial wireless links rationalized. This will help in increasing Internet and Broadband penetrations. For shorter distances and lower spectrum bandwidth discounts from 50% to 98%.
- Present level of spectrum allocated to Mobile operators is much below the international averages and there is a need for immediate time bound action for making more spectrum available.
- After analysing the spectrum requirements to achieve the target of 200 million mobile subscribers (both GSM & CDMA) in the year 2007, Authority recommended that :-
 - o While retaining the subscriber base approach, the actual spectrum allocation criterion should be urgently reviewed within a month from date of acceptance of TRAI's recommendations.
 - o Additional carriers to be allocated to CDMA operators in 800 MHz band based on revised criterion.
 - o After vacation by existing users, part of 2x4.8 MHz spectrum in 900 MHz band in Circles to be allocated to GSM operators having only 1800 MHz band to improve the coverage in semi- urban and rural areas.



- o The availability of at least 2 x 25 MHz spectrum in 1800 MHz band should be coordinated by Defence by December, 2006.
- o The availability of 2 x 5 MHz in IMT-2000 2GHz band to each existing mobile service provider who demands it, should be coordinated in a very short-time frame to offer IMT-2000 services.
- o The availability of spectrum in 450 MHz band should be coordinated.
- CorDECT spectrum should be delinked from mobile spectrum and distributed rationally.
- To promote the most efficient usage of the CorDECT platform, spectrum reserved for its use by leveraging its core algorithms. Spectrum allocation for specific operators should be altered from its current format and out of the total 11 carriers 7 carriers to be left open to be shared by all operators with the clearance to operate CorDECT equipment in their service areas.
- Introduction of new formula for encouraging efficient utilization of Terrestrial Wireless Links.

C. Recommendations on Issues related to Satellite Radio Services

39. On 27th June, 2005, TRAI provided its recommendations to the Government on Issues Relating to Satellite Radio Services. The Amit Mitra Committee in its report on Private Sector FM Broadcasting had suggested that a Satellite Radio Policy should be laid down by the Government. In line with its consultative approach, TRAI brought out a consultation paper on issues relating to Satellite Radio Services on 29th December, 2004. TRAI also held Open House Discussion on 11th February 2005 in Delhi. Based on the responses received from various stakeholders on the consultation paper and during the Open



House Discussions, TRAI submitted its recommendations to the Government.

The major recommendations include:

Regulation and Monitoring

- There should be only one license for carriage and the licensee would be responsible to the licensor for content regulation.
- AIR Programme code and Advertisement code should be made applicable to Satellite Radio also.
- A common uplinking and downlinking policy should be evolved for both television and radio taking into account all aspects including security. This common policy should determine the uplinking policy for Satellite Radio also.

Licensing

- It would be desirable to provide a licensing framework now itself so that there is no uncertainty in the future.
- 100% foreign ownership should be permitted, as already permitted to the only operator.
- There should not be any entry fee unless there is excess demand for the available spectrum space in which case tenders may be invited on the lines recommended for FM Radio.
- There should be no annual license fee as long as terrestrial repeaters are not permitted. Once these repeaters are permitted, a revenue share of 4% of gross revenue generated in India should be imposed as has already been recommended for FM Radio.

Technical Considerations

- It should be mandatory for satellite radio operators to provide addressability to every subscriber, which is capable of blocking unwanted channel or group of channels.



- Initially, multi standard receivers which can be used with different transmission standards need not be mandated for potential satellite radio operators.
- A single license may be issued to provide satellite radio service and complementary terrestrial service to the potential service providers. This license should be issued to the Indian subsidiary only to ensure no legal complications in enforcing regulation and collection of license fees.
- The terrestrial repeaters should be permitted only for the re-broadcast of their signal from the satellite and should not be allowed to broadcast locally inserted programmes.

D. Recommendations on Issues related to Virtual Private Network (VPN)

40. On 16th August, 2005, TRAI submitted its recommendations to the Government on issues relating to entry fee and annual licence fee for ISP Licence with Virtual Private Network (VPN). Pursuant to Hon'ble TDSAT's Order, DoT had sought TRAI's recommendations regarding issues of entry fee and annual licence fee for provision of VPN services by ISP licencees in the country.

41. After taking into consideration Hon'ble TDSAT's judgement, responses received from various stakeholders, current scenario in the country and best international practices, TRAI has concluded that both layer-2 and layer-3 VPN services are different and layer-3 VPN cannot be regulated differently from Internet access service. Also both types of VPN services have to be regulated softly with an overall objective of encouraging the technological developments for the benefit of consumers & keeping the cost to the end-users low, as well as to avoid double taxation. With these objectives, it has been recommended that Layer-3 VPN should be regulated in the same way as existing Internet access and Layer-2 VPN to be



treated similar to VSAT service which provides data connectivity in a CUG environment, for the purpose of levy of nominal entry fee.

The recommendations are as follows:

One time Entry Fee

For Layer-2 VPN service — Rs 30 lakhs

For Layer-3 VPN service — Nil

Annual Licence Fee

For Layer-2 and Layer-3 VPN services — Nil

E. Recommendations on Issues relating to Private Terrestrial TV Broadcast Service

42. On 29th August, 2005, TRAI submitted its recommendations on issues relating to Private Terrestrial Television Broadcast service. TRAI had circulated a Consultation Paper on this subject in February, 2005 and later held an Open House Discussion in May, 2005. After taking into account the views of the stakeholders, TRAI formulated its recommendations to provide for the entry of the private sector into terrestrial TV broadcasting.

The major reasons for making these recommendations were:-

- The Supreme Court judgment of 1995 on Airwaves that no medium should be controlled by a monopoly either of the state or of any individual, group or organisation.
- The private sector would complement the public sector and provide more resources for the development of this alternative.
- This would give an additional choice to the consumers to view channels in a free-to-air mode.



- Apart from commercial service, such a policy decision could also pave the way for community television.

The main recommendations included:

- Community television could be permitted and detailed recommendations on this would be sent once Government takes an in principle decision to allow the private sector for terrestrial broadcasting and also after the Government policy on community television is finalized.
- In respect of commercial television broadcasting, it was recommended that for the present this should be permitted in both analogue and digital modes since at present there is sufficient spectrum to support a few players even in the analogue mode.
- Details of frequency allocation for analogue and digital service could be finalized at a later date once the major decisions are taken.
- Allocation of spectrum would also have to take note of the requirements of wireless based telecommunication services.
- Eligibility conditions on Private Terrestrial TV Broadcast Service should be similar to the Private FM Radio.
- Similarly the licensing structure should also follow the parallel of FM Radio.
- In view of the large number of private TV channels having national coverage, networking has been recommended.
- In respect of foreign investment, it has been recommended that there should be a comprehensive review to bring about a greater consistency in the rules of various segments of media sector.



F. Recommendations on Digitalization of Cable Television

43. On 14th September 2005, TRAI released its Recommendations on Digitalisation of Cable Television. The recommendations were issued after a detailed process of consultation with stakeholders. The recommendations provide for a national plan for digitalisation whose first phase would commence on April 1, 2006 and end in 2010 to coincide with the 19th Commonwealth Games scheduled to be held in Delhi.
44. The recommendations provide for a voluntary approach to digitalisation on behalf of both the operators as well as the consumers. Accordingly, during the first phase of 2006-2010, it is expected that digital services would be made available in all cities/urban agglomerations with a population of 1 million plus. In all these cities, the existing analogue service will continue simultaneously. Digital services have already commenced in the five cities of Delhi, Mumbai, Chennai, Pune and Bangalore. The draft national plan calls for rationalisation of excise and customs duties as well as expediting the provision of right of way. The Authority has suggested that Government should recommend to the State Governments that the proceeds of the entertainment tax for the four years (2006 - 2010) should be used for an intensive consumer education programme. This would also help state governments in increasing their tax base.
45. The recommendations also provided for a framework for licensing. This involves automatic licensing for existing operators and a non-exclusive automatic licensing process for new operators subject to compliance with certain minimum conditions. This licensing framework will help in future regulation as well as in administering the incentives proposed in the recommendations. The recommendations also envisage the development of digital decoders whose adoption would, however, be voluntary and left to the operators and consumers to decide upon. It has also been recommended that there should also be a clear policy framework for HITS which could



be on the lines of the permission already given by the government for one operator.

G. Recommendations on Growth of Telecom Services in Rural Areas

46. Since tele-density is interlinked with the level of development, the large differential between rural (1.94%) and urban tele-density (31.1%) cannot be sustainable. The Authority recognized that without focus on rural areas, sizeable growth in telecom sector would not be possible. Therefore, the Authority felt that there is a clear need for a re-look at our traditional policies regarding the communication needs of rural areas. Authority noted that time has come that our policies of reaching telecom to villages are looked as a "Universal Service Opportunity" rather than a "Universal Service Obligation" and the present time is ripe for such a changeover.
47. The present USO Policy of subsidizing individual DELs, VPTs, MARR replacement, PTICs / HPTICs would barely be able to achieve rural tele-density targets of 4% by 2010 even after giving huge subsidy support of around Rs.30,000 crores. Neither such low tele-density in rural areas in 2010 nor such high subsidies to achieve so little can be acceptable. The Authority has, therefore, recommended that an alternative approach of facilitating network infrastructure expansion should be adopted. This approach proposes to offer financial incentives to service providers in the form of coverage of partial cost of shared infrastructure and license fee and spectrum charge reduction based on the number of rural base station locations. If the proposed scheme is implemented early then TRAI's experience of mobile growth in urban areas indicate that India would achieve rural tele-density of around 15% by December, 2007 and this combined with expected urban tele-density of around 43% would take the overall tele-density to 22.98% easily meeting the target of 250 million subscribers set out by the Hon'ble Minister of Communications & IT. If the present USO policy continues then it is expected that India would achieve rural tele-density of only around 3%



by 2007 end and in order to achieve the subscriber base target of 250 million, it would require an urban tele-density of 70% by December, 2007 which is too ambitious a target for urban areas and even if achieved would create a much larger rural/urban divide, which cannot be an acceptable policy.

48. Authority has noted that there are already contractual commitments in the present USO policy. Accordingly, during the validity of the license agreements both the schemes may work in parallel and fortunately there would be balances in USOF to fund both, but ultimately only the network infrastructure expansion approach should be followed for providing support from the USOF.

The salient features of TRAI's recommendations are as follows:-

- Sharing of infrastructure to receive support from USO
- Supporting backbone infrastructure through USO fund
- Discount in Annual License Fee and Spectrum Charges linked with rural coverage.
- Development of suitable applications
- Reduction of rural VSAT license fees and spectrum charges and provision of transponders at affordable rates
- No right of way charges for networks in rural areas
- Niche operators to be supported from USOF and exemption from spectrum charges for them
- No spectrum fees for usage of CorDECT and similar technologies in rural areas as well as for usage of 450 MHz
- No prior SACFA clearance for deployment of towers upto 40 m. in rural areas.
- Funds collected as Universal Access levy should be made available to USOF



H. Recommendations for review of Broadband Policy reiterating TRAI's recommendations pertaining to Local Loop Unbundling & fiscal incentives for Broadband

49. Concerned about slow Broadband penetration in the Country, on 3rd November, 2005, TRAI recommended to the Government to review some of the provisions of Broadband Policy and to reconsider its recommendations pertaining to Local Loop Unbundling and Fiscal Incentives for Broadband. As per the Broadband Policy issued by Government in October 2004, a target of 3 million subscriber base for Broadband was to be achieved by all the service providers together by the end of year 2005, half of which was to be met by PSU operators.

50. The progress reports submitted by the various service providers indicate that subscriber base of only 0.61 million for Broadband was achieved by the end of September 2005, out of which 0.26 million belongs to PSUs and 0.35 million to the private service providers. Hence, the actual achievement is much below the policy target of 3.0 million for December, 2005, which is likely to be missed. TRAI had made many recommendations for accelerating the growth of Internet & Broadband. Some of the recommendations were not accepted which are given below:-

- (i) Recommendations pertaining to Local Loop Unbundling (LLU).
- (ii) Other Fiscal measures like tax concessions for Broadband equipments & services.

Many of the competitive service providers have mentioned that it would be difficult to achieve the Broadband Policy targets unless Local Loop Unbundling by incumbents is mandated by the Government. In addition, urgent need for tax incentives for Broadband equipments & services has been brought out in the recommendations.



I. Recommendations on Promotion of Competition in International Private Leased Circuit (IPLC) Segment

51. TRAI has submitted its recommendations on issues relating to Promotion of competition in International Private Leased Circuits (IPLC) segment on 16th December, 2005. After opening up of the ILD sector in March, 2002, effective competition has not taken place in the IPLC market due to various impediments and the price of IPLC has not come down sufficiently as desired. TRAI had already specified a ceiling tariff substantially lower than the market price for IPLC, which became effective w.e.f. 29/11/2005.

Salient Features of the Recommendations are:

- Entry Fee & Annual License Fee: - No change in view of recent downward revision by Government.
- Resale for IPLC to be permitted w.e.f. February, 2007 i.e. after 5 years of opening up of ILD sector for competition and existing license conditions of ILDO license to be suitably amended. The Retail-minus wholesale price and terms & conditions for resellers to be fixed by regulator through a consultative process
- Equal ease of access to bottleneck facilities at Cable Landing Station (CLS) and permission for landing of new cables to be mandated without any time limit. The license conditions to be accordingly modified to enable the regulator to issue requisite regulation.
- International cable carriers to be allowed to terminate cable capacities on existing cable landing stations and to provide IPLC to ILD operators. Such carriers to be licensed with the Government as International Infrastructure Providers without any Entry fee and annual revenue share.



- It is expected that through the above steps, the various bottlenecks persisting in the IPLC segment would get addressed to facilitate effective competition in this segment.

J. Recommendation on Transition from IPv4 to IPv6

52. With the increased Internet penetration in the country, newer devices, applications and services are likely to be deployed which will generate a greater demand of IP addresses by the Internet users. In addition, Internet users are also aspiring for better quality of service, mobility and security while using the Internet. Therefore, migration to the next generation Internet protocol is a must for catering to emerging challenges. TRAI recommended to the Government on the issues relating to transition from IPv4 to IPv6 on 9th January, 2006.

The salient features of the recommendations are :

- (i) Definition of IP address mentioned in ISP licence needs to be amended to enable 128 bits to be used as needed for IPv6 based addressing, in place of 32 bits at present.
- (ii) The usage of IPv6 in the platforms/applications pertaining to e-governance to be mandated so that head-start is taken for IPv6 deployments. The Govt. should also mandate IPv6 compatibility in its own procurement of IT systems and networks.
- (iii) Workshops and seminars to bring awareness about IPv6 and its benefits for service providers and end-users community should be conducted through Govt. agencies.
- (iv) Establishment of National Internet Registry (NIR) in the country, within the framework of APNIC, the Regional Internet Registry, utilizing the existing set up of National Internet Exchange of India (NIXI).
- (v) Enlargement of the existing IPv6 test bed of ERNET to make it countrywide and accessible to all interested parties.



- (vi) Up-gradation of NIXI as a national test-bed for IPv6 & interconnection among its various nodes to provide access to all ISPs.
- (vii) Encouragement to TEC, CDOT, and CDAC to set up the IPv6 test-beds through government funding.

K. Recommendations for permitting usage of strings containing #, \$, £, etc. for accessing High Speed Data Services in Wireless Networks

- 53. On 8th March, 2006, TRAI provided this recommendation. Most of the BSOs /UASPs, who are providing services through wireless based network expressed their inability to provide Internet access by dialing 172xxx as per the provision of National Numbering Plan (NNP)-2003 pertaining to dial-up Internet access due to technical non-feasibility. Their customers are provided access to the Internet service by keying-in #777 as a standard feature of CDMA handsets and \$99\$ and *99 ? etc. as a standard feature of GSM handsets to invoke the service option for high-speed Internet access.
- 54. Based on the stakeholders comments and keeping in view the interest of consumers, TRAI recommended that relevant provisions of NNP-2003, viz. clause 1.6 of Introduction Part and Numbers for Special Services described in Annex IV be elaborated and clarified so that the usage of strings containing #, \$, £ etc. for indicating option of High Speed Internet access through wireless networks is explicitly allowed.

L. Recommendations on Mobile Number Portability

- 55. Mobile Number Portability (MNP) allows mobile subscribers to change their service provider while retaining their subscriber number. Portability benefits subscribers, encourages improvement in quality of service through increased level of competition between service providers rewarding those operators having better customer service, network coverage and service quality. In the present status of telecom services



in India, TRAI considers it an appropriate time to initiate process for implementing Mobile Number Portability so as to increase customer convenience, quality of service and further enhance competition among service providers in the mobile sector.

56. The salient features of the recommendations on Mobile Number Portability are given below:

- Mobile Number Portability implementation process should be initiated. A time frame of 12 months between the acceptance of recommendation by the government and launch of this facility is recommended. It is recommended that this facility should be available to mobile subscribers tentatively by 1st April 2007.
- Government may mandate all UASLs/CMSPs to implement Mobile Number Portability. Further, it is recommended that initially MNP be introduced within the service area only.
- It is appropriate to implement MNP in a phased manner starting from metros and 'A' category service areas followed by 'B' then 'C' category service areas within the interval of six months.
- A direct solution, i.e., All Call Query Method be implemented for Mobile Number Portability in India.
- Mobile Operators through neutral third party shall establish logically centralized database with not more than 5 regionally located databases. Cost of this database shall be borne proportionately based on subscriber base by each operator. This database shall be the depository for the ported numbers.
- Any other issue relating to creation of database, interfaces, performance parameters and service levels shall be resolved by discussion and coordination among all the stakeholders. A steering committee consisting of operators, industry association and TEC under the aegis



of TRAI shall be constituted to workout the details of these implementation issues.

- Customer shall approach recipient operator for porting.
- In respect of porting charges, only recipient operator shall be permitted to charge a fee for successful porting.
- Provision may be made by the licensor in the license indicating that TRAI shall issue regulation in this regard.
- Common setup costs for Number Portability Administration Center (NPAC), Clearing House would be borne by operators based on the subscriber market share of operators as on 1st Jan, 2007.

57. The issue of cost of implementation and therefore cost to the customer has been carefully analysed by the TRAI. It is estimated that even if the entire cost is transferred to the porting customer, it works out to a one-time payment of around Rs.200 which will enable the operator to recover his investment cost in 3 to 5 years.

58. The issue of Fixed Number Portability was also examined by TRAI and it was found that due to the reasons of non availability of private operators networks in all SDCAs (roughly tehsils) and the numbering scheme being SDCA based, besides existence of huge legacy networks etc., this is not the appropriate time for introducing Fixed Number Portability.

M. Recommendations on Next Generation Networks (NGN)

59. Due to technological advancements, there is a trend towards unification of networks & services leading to the emergence of Next Generation Networks, which are predominantly IP based. The NGNs enable the service providers to provide a wide range of services (voice, data, multimedia) over the same platform. In addition, NGNs also enable Fixed-mobile convergence/ substitution resulting into reduced demand on mobile services



spectrum. Regulators in many developing countries are attempting to lay down broad principles for NGN migration well in advance of the transition actually occurring.

In view of this, TRAI provided its recommendation on 20th March, 2006 on Next Generation Networks. The main focus of TRAI's recommendations is to bring out the urgent need for converged/unified licensing regime to enable NGN networks to be utilized to their full capabilities and promotion of Broadband in the country. In addition, the need for awareness building about various aspects of NGN has been brought out.

The salient features of TRAI's recommendations are as follows:

- (i) Govt. should arrange to organize some interactive workshops/seminars through its various agencies like TEC, C-DOT, ALTTC, etc. on various aspects of NGN to bring awareness among different stakeholders. TRAI has already started this process.
- (ii) TRAI's recommendations for unified licensing regime dated 13th January, 2005 (as modified in TRAI's recommendations on Issues relating to convergence & competition in Broadcasting & Telecommunications dated 20.3.06) should be considered expeditiously so that various operators can make best use of NGN platform to provide all types of telecom, data, video and broadcast services through a single license.
- (iii) It may be recalled that in the Broadband Policy, 2004, there is a provision for review of the performance of various operators regarding the Broadband services. Increase in Broadband penetration is a must for wider deployment of NGN services and since the policy targets for Broadband have not been met, it is the time to undertake the review of various recommendations on Broadband access related issues mentioned above. It is reiterated that unless various operators are able to deploy NGN in access to provide multiple services, its full benefits cannot be made available to customers.



- (iv) The items for review include reconsideration of Local Loop Unbundling which can expedite the uptake of Broadband through the existing copper loops by bringing in competition, delicensing of spectrum in 5.1 to 5.3 GHz band for outdoor usage and also identification of some additional spectrum for Broadband access.
 - (v) TEC should be entrusted the task to study and analyse various international developments pertaining to NGN in a time bound manner so as to incorporate the same in Indian context and develop interface requirements for the same.
 - (vi) A cross industry joint consultative group consisting of TEC, Service providers, technical institutions, vendors, etc. for analysing NGN standards & their customisation for national requirement should be set up.
60. In addition, TRAI has decided to have a detailed consultation with stakeholders on the interconnection issues and QOS regulation for NGN. TRAI has also decided to set-up an expert committee named 'NGN eCO' involving experts from DOT, TEC, C-DOT, service providers, vendors and academics to deliberate upon the various migration and interconnection issues. The measures indicated above will facilitate utilization of Next Generation Networks to their full capability.

N. Recommendations on Issues relating to Convergence and Competition in Broadcasting and Telecommunications

61. Convergence of technologies is rapidly blurring the boundaries between telecommunications and broadcasting. It is therefore necessary for the legal and regulatory framework to adapt to this convergence and actively promote such convergence. Accordingly, on 20.03.2006, TRAI released its Recommendations on issues relating to Convergence and Competition in Broadcasting & Telecommunications. This would also help in facilitating competition.



The salient features of these recommendations are as follows:-

- There should be converged regulatory regime. The starting point for this exercise should be the Communications Convergence Bill, 2001.
- However, several changes need to be made in this Bill. Content regulation should be kept out of the purview of the converged regulator. The division of powers between the Government, TDSAT and TRAI should also broadly correspond to the present position.
- The unified licensing recommendations already sent to Government needs immediate consideration. However, there should be reduction in the entry fee to reflect the changes made in the entry fee for NLD/ILD licence. Thus, this entry fee should come down to Rs.5 crores as against Rs.107 crores recommended earlier and this should further reduce to Rs.30 lacs after 5 years as already recommended.
- There should be greater flexibility in spectrum allocation to take full advantage of new services and new technologies for existing services that may evolve with time.
- The Authority has also made a number of recommendations based on the Report of the Committee constituted under the aegis of TRAI along with other stakeholders to suggest ways and means to promote Broadband based services over cable TV networks. These recommendations cover the following areas:-
 - Rationalisation of Differential Custom Duty Regime.
 - Restriction on use of Protocols
 - Institutional funding
 - FDI Limits
 - Right of Way



3.3 Ensuring compliance of the terms and conditions of license

62. This function is discharged by TRAI through a multi pronged approach. One of these approaches is through analysing reports received from the service providers. Another approach is through feedback/ representations received from consumers/ consumer organizations, experts, Members of Parliament, etc. In certain cases, TRAI on its own initiative has taken action for ensuring compliance of terms and conditions of license.
63. TRAI gets quarterly reports from service providers of different telecommunication services regarding their performance, network roll out, quality of service, etc. These reports provide an input to TRAI on the compliance by service providers of several parameters stipulated in the license. Wherever required, meetings are held with service providers for reviewing their performance and compliance with the license terms and conditions. One of the important areas in this regard is the network roll out of the basic service operators both relating to commissioning of DELs and roll-out of VPTs vis-a-vis their roll-out obligations. During this year, all UASLs and CMSPs were requested to confirm their compliance to the clauses relating to provisioning of Public Emergency Services, etc.

3.4 Steps taken to protect the interest of Consumers of Telecommunication Services

64. In January 2001, the TRAI issued a Regulation formalising the mode of its interaction with Consumer Organisations and NGOs related with telecom functions. This regulation provides the modalities for free registration of NGOs and Consumer Organizations with the TRAI to enable two-way interaction on a sustainable basis. The registered Consumer Organizations/NGOs are kept informed about the developments by providing them with consultation papers, involving them in the consultation process and arranging their meetings with the Authority. The consumer groups and NGOs contribute to the policy formulation process of TRAI by providing their comments on the issues



under consideration and by bringing important consumer concerns to the notice of TRAI.

65. Though the TRAI is not mandated to consider individual consumer complaints, it takes up such complaints if they relate to systemic problems/shortcomings. It also follows up complaints by consumer organizations. Based on such complaints, the Authority has addressed a number of issues relating to tariffs for cellular mobile services, the provision of fixed line phones in a non-discriminatory manner, unusually low call completion rates and failure of a network at specified place, etc.

66. TRAI also facilitated a common charter of telecom services for adoption by all the service providers. The charter was conceptualized and drafted in consultation with various Consumer Advocacy Groups, NGOs and the service providers and was released on 24th February, 2005 after its unanimous acceptance by the service providers, Consumer Advocacy Groups and NGOs. The common charter is a written voluntary declaration by the service providers about its various dimensions of service. It provides a platform to the consumers to demand quality of service, defines their expectations from the service providers and establishes operators acceptance of the same. The charter would be reviewed and upgraded at regular intervals to match the changing expectations of the consumers.

67. During the year 2005-06, TRAI took several measures to protect the interests of the consumers. With a view to help the consumers to make an informed choice of the tariff plans/schemes available in the market and to discourage deceptive advertisements, TRAI issued a direction on 2nd May, 2005 mandating the service providers to adhere to the prescribed Revised Formats in the publication/advertisement of tariffs. These Formats envisage provision of minimum essential information on telecom tariffs to facilitate an informed choice by the consumer. Further, on 8th July, 2005, TRAI issued a direction mandating refund of security deposit within 60 days from the date of disconnection of service after adjustment of



dues, if any, failing which the service provider has to pay an interest @ 10% per-annum for the period beyond the stipulated period.

68. TRAI also noticed that the customers were facing inconvenience due to sudden and abrupt disconnection of service on the ground of their usage having exceeded the credit limit. In order to protect the interests of the consumers, Authority issued a direction on 27th June, 2005 prescribing guidelines on credit limit for the post-paid subscribers. It was made mandatory for the service providers to intimate the subscribers in advance about the credit limit on reaching 80% of the credit limit. The direction also envisaged the manner in which the credit limit set for an individual subscriber could be enhanced. This direction of TRAI will help the subscriber in getting uninterrupted service. TRAI also issued a direction on 29.06.2005 mandating the service providers to furnish complete details of the tariff plans to the subscribers in writing within a week of activation of the service. In addition, as and when there are any changes in any aspect/item of tariff in the chosen package, the operator shall intimate in writing such charges to those subscribers whose tariff packages undergo a change.

69. The Authority also noticed instances where customers were charged for certain value added services without their consent. TRAI, therefore, issued a direction on 03/05/2005 on value added services stating that no chargeable value added service shall be provided to a customer without his explicit consent and any service, which was earlier being provided free of charge, shall not be made chargeable without the explicit consent of the customer. A similar direction was issued on 12/09/2005 to all Internet Service Providers. Authority also issued a direction on 03/05/2005 regarding premium rate services stating that in all communications/advertisements relating to premium rate services, viz., quiz, ringtones, tele-voting, etc., the pulse rate/tariff for the service shall be indicated to the customer in advance. Further, on 16/09/2005, TRAI issued a direction regarding tariff plans with misleading titles directing the service providers not to offer, present, market or advertise



any tariff plan that is likely to mislead the subscribers and also all monthly fixed recurring charges which are compulsory for a subscriber under any given plan shall be shown under one head.

70. The Authority observed that mobile operators were forfeiting the unused balance talk time of the pre-paid subscribers who migrated to the recently launched tariff plans with lifetime validity. Forfeiting of such unused balance talk time by CDMA operators while migrating the subscribers to the tariff plans with lifetime validity was against the provisions of the Telecommunications Tariff Order 1999. The Authority issued direction and got the balance talk time refunded/ carried forward to the affected subscribers. The Authority also observed that a mobile operator hiked tariffs for certain items such as CLIP charges even within the six months of enrolment of a subscriber in a particular tariff plan, which was against the provisions of the Telecommunications Tariff Order 1999. The Authority asked the service provider and got such excess charges refunded to the subscribers.

3.5 Levy of fees and other charges at such rates and in respect of such services as may be determined by Regulation

71. The TRAI notified a Regulation on Register of Interconnection Agreements on 21st August, 1999, under which the Register is open for inspection to any member of the public on payment of prescribed fee and on fulfilling any other condition that may apply in this case. The fee for inspection of the Register is Rs. 50/- per hour. A fee of Rs. 20/- per page is charged for copies of extracts from the Register.

3.6 Steps taken to ensure compliance of Universal Service Obligation

72. The steps taken by TRAI to ensure compliance of USO have been indicated in Para 2.10.



3.7 Other Matters

(I) Institutional Capacity Building Project of TRAI

73. Under the Institutional Capacity Building Project of TRAI funded by 'plan' budget, following studies/ consultancies have been completed during 2005-06 :

- (i) Study on Measures to Promote Competition in IPLC in India, (Consultant – M/s ANALYSYS Consulting, UK)
- (ii) Study on Next Generation Networks (Consultant- M/s Spectrum Strategy, UK)
- (iii) Study on System Analysis & Design and Development of System Software (Consultant : Centre for Development of Advanced Computing (CDAC))
- (iv) Short Consultancy on Mobile Number Portability (Consultant: M/s OVUM, UK)
- (v) Study on Issues related to Promotion of Competition in Domestic Leased Circuit Market in India (In-house)

74. 18 officials of TRAI have attended various international trainings during the year 2005-06 under the Institutional Capacity Building Project of TRAI. After close of the earlier World Bank loan, TRAI has also initiated the process for obtaining a fresh loan from the World Bank for strengthening the institutional capabilities of TRAI to perform the functions under the TRAI Act.

(II) Report of the Committee for finalising necessary Technical and Regulatory inputs for the introduction of Intelligent Network (IN) Services in Multi-Operator Multi-Services Environment

75. The Authority constituted a committee on 28.2.2004 for finalising necessary inputs for introduction of IN Services in the Country. The Committee comprised of representatives of TRAI, DoT, TEC, C-DOT, BSNL, Reliance, Data Access, MTNL, ABTO, COAI, BTSOL. The report submitted by the Committee has been summarized below:



(A) Technical Issues

Intelligent Network (IN) services add value to voice and data bearer service through number translation, alternate billing and private numbering plan features. These features are provided with the help of network databases (also known as Service Control Points – SCPs) endowed with query-response protocols using which the underlying bearer network entities such as PSTN/ ISDN switches, mobile switching centres and media gateways communicate with it. The bearer network entities designated to communicate with the SCPs are known as the Service Switching Points (SSPs). With respect to the physical architecture, the SCPs and the SSPs can be within the same node, co-located or remotely located over the SS7 signalling network. The rest of the bearer network entities are independent of the IN nodes. This independence allows the network providers to utilize the same IN infrastructure for a variety of networks, viz., Fixed, WLL-F, WLL-M, Cellular Mobile, VoIP and IP. Therefore, Intelligent Networks provide twin advantages of new revenue streams and investment protection.

(B) Regulatory Issues

From a regulator's perspective, IN services pose a challenge due to non-availability in many cases of B number, i.e., called party number at the originating network interfaces, alternate billing options, i.e., calling party pays in full or part, called party pays in full or part or a third party pays, and, distributed location of functional entities. These characteristics bring difficulties in transparent application of the existing interconnect regime and implementation of an interconnect regime that could be termed as equitable and mutually beneficial to the interconnecting operators. A progressive evolutionary approach that can be refined at subsequent stages based on the experience gained by the operators and regulators should be adopted for the multi-operator scenario in the country.



(C) Architecture Option and Interconnection Usage Charges

- (i) Three generic network architecture has been suggested for BSO/ CMSO – NLDO/ ILDO – ILDO inter-networking depending upon the network location/ownership of the SCP and the SSP. In case the SSP is located in the Access Provider’s network, the SCP can be shared among the service providers. In such an arrangement, the B number will always be available at the POIs and the existing interconnect can be applied straightaway. Only issues that would need to be tackled would be the determination of origination charge, “port” charge for SS7 signalling links between SSP and SCP and database hosting charges at the SCP. On these issues, forbearance can continue for origination charge and the database hosting charge could be mutually agreed between the co-operating operators. TRAI could determine the charges, if there is no mutual agreement on this matter. However, inter-working between Access Provider and service provider who is providing IN Service could be an issue of concern.
- (ii) The other options include SSP and SCP with the Access Provider only, SSP and SCP with the NLDO/ ILDO and SSP/ SCP being a shared third party or shared resource located in the interconnect exchange cum inter-carrier billing clearing house.
- (iii) Since there are different possibilities, the Committee recommended that TRAI should take note of all the scenarios in its regulatory initiative for IN services and the same should be consistent with National IN Standards.

(D) Interconnection and Quality of Service Issues

The Committee recommended that all the Service Providers (BSOs, CMSOs, NLDOs and ILDOs) may deploy IN infrastructure and provide value-added services based on the framework presented in this paper for techno-commercial arrangement, and adhering to the National Numbering Plan 2003 including modifications as suggested in this report. Toll free IN Services and Long Distance Cards should be the first



set of services that may be offered in multi-operator multi-service scenario.

76. Based on the recommendations of the Committee, a draft Regulation on Intelligent Network Services was finalized with the approval of the Authority and the same was posted on the website of TRAI on 2nd December, 2005 for comments/inputs from various operators. Comments have since been received from some of the stakeholders. COAI also made a presentation on this issue in TRAI. After taking these comments into account, TRAI would finalise and issue Regulation on IN Services.

(III) Constitution of a Committee on “Interconnect Exchange cum Inter-Carrier Billing Clearing House for Multi-Operator Multi-Service Scenario”

77. The Authority constituted an Expert Group on 12th January, 2005 under the Chairmanship of Secretary, TRAI to suggest possible implementation methodology for “Interconnect Exchange cum Inter-Carrier Billing Clearing House for Multi-Operator Multi-Service Scenario”. The Expert Group comprised of representatives of DoT, TEC, C-DOT, AUSPI, COAI, BSNL, MTNL, Bharti, Reliance, Tata Teleservices, VSNL, IDEA Cellular, BPL Mobile and Hutch. Secretary, TRAI and Advisor (Fixed Network), TRAI were appointed as the Chairman and Convener, respectively, of the Expert Group



Three meetings of the Expert Group have been convened during the year 2005-06. Divergent views have emerged during the various meetings of the Expert Group. The Expert Group is in the process of firming up its views after taking account not only the present scenario but also the future network expansion plans and technology issues. Based on the Report of the Committee, the Authority will finalize its Recommendations / Regulation for the introduction of Interconnect Exchange cum Inter-Carrier Billing Clearing House in the country.

(IV) Constitution of an Expert Group to put in place a supplementary system to monitor and address the under-reporting of international call minutes and changing CLI of incoming ILD calls by Service Providers

78. The Authority had decided to set up an Expert Group to create an institutional system to effectively monitor and eliminate the possibility of under-reporting of international call minutes and changing CLI of incoming ILD calls by service providers. The Expert Group comprised of representatives of DoT, TRAI, TEC and ILDOs. The Secretary, TRAI and Adviser (Fixed Network), TRAI were Chairman and the Convener, respectively, of the Expert Group. The Committee was authorized to co-opt experts from time to time as required. The Committee was also authorized to form working groups to assist them in their task, if required.

79. Seven meetings of the Expert Group were held in TRAI's Office during 2005. Based on the discussions on the issue, the Expert group deliberated on a set of formats for data collection. It was decided that each ILDO should furnish the traffic received from foreign carrier and terminated to the various access providers and NLDOs on monthly basis. Similarly each NLDO & Access Provider should provide the matrix of the traffic received from the ILDO and/or NLDO. It was also decided that consistency should be ensured not only for incoming International minutes but for outgoing International minutes also. In this regard, after detailed deliberations in the meetings, total Seven formats were finalized by the committee.

80. The final report of the Expert Group has since been received and the same has been forwarded to the Department of Telecommunications on 31.01.2006. On the basis of the recommendation of Expert Group, TRAI issued a Direction to all access providers, NLDOs and ILDOs on 19.1.06 stating that the traffic minutes should be submitted on monthly basis with effect from the month of January, 2006 and onwards by all



ILDOs, NLDOs and Access Providers in prescribed formats, by 15th of the following month. This direction of TRAI was also forwarded to DoT.

(V) TRAI's International Seminar on Regulatory issues of VoIP

81. While dealing with the carriage of Voice over Internet, commonly referred to as Internet Telephony, we face a 'disruptive technology', which can undermine the current revenues of the service providers, that is why it is always opposed by the incumbent operators. In addition, there are issues related with numbering resources, access to emerging services and security. At the same time, such technological developments cannot be stopped or banned because of their attractive capabilities besides economic benefits to consumers. From the regulatory point of view, it has become a major challenge to formulate policies and regulatory practices, which take into account these evolutionary technological developments raising security issues (emergency numbers access and wiretap) and complexity for numbering systems and maintain level-playing field between various operators. Extensive studies in this regard are being carried out all over the world including neighbouring countries. It was felt that there was a need for awareness about international trends in this area, which is crucial for efficient regulatory decision-making. Keeping all these factors in mind, TRAI organized an International seminar on the Regulatory issues of VoIP on 9th November 2005. Telecom experts both from India and abroad, service providers and other stakeholders participated in this seminar.



PART-IV

**ORGANISATIONAL MATTERS OF
TELECOM REGULATORY AUTHORITY OF
INDIA AND FINANCIAL PERFORMANCE**





4.1 Organisational matters of Telecom Regulatory Authority of India

1. This section provides information on organisational matters of the TRAI relating particularly to organisation, funding, human resources covering the areas of recruitment, training and seminars and some general issues.

A) Organisation

2. The Telecom Regulatory Authority of India was established under the Telecom Regulatory Authority of India Act, 1997 enacted on 28th March, 1997. The TRAI (Amendment) Act, 2000 led to reconstitution of the Authority. It now consists of a Chairperson, two whole time Members and two part-time Members.
3. The Secretariat of TRAI is headed by the Secretary and works through nine functional Divisions – Fixed Network, Mobile Network, Converged Network, Economic, Financial Analysis, Administration & Personnel, Quality of Service, Legal and Broadcasting & Cable Services. A staff of 156 (as on 31.03.2006) is handling the work in the Secretariat, which performs the tasks assigned to it by the Authority in the discharge of its functions. Wherever necessary Consultants are engaged on the following basis:
 - Individual Consultants on retainership basis
 - Consultants for specific projects
 - Consulting Firms on retainership basis
 - Consulting Firms for specific projects

Engagement of Consultants is either on secondment or assignment basis.



4. Staff strength of TRAI (as on 31.03.2006)

As on 31.03.2006, the staff strength of the TRAI was as under:

Secretary, Pr.Advisors/ Advisors Level

S.No.	<u>NAME OF THE OFFICER</u>	<u>POST HELD</u>
1.	SH. RAJENDRA SINGH	SECRETARY
2.	DR. HARSHA VARDHANA SINGH	PRINCIPAL ADVISOR (PRESENTLY ON LEAVE)
3.	SMT. INDU LIBERHAN	PRINCIPAL ADVISOR (FINANCIAL ANALYSIS & IFA)
4.	SH. A. SINHA	PRINCIPAL ADVISOR (LEGAL)
5.	SH. S.N.GUPTA	PRINCIPAL ADVISOR (CONVERGED NETWORK)
6.	SH. RAKESH KACKER	ADVISOR (BROADCASTING & CABLE SERVICES)
7.	SH. R.K. BHATNAGAR	ADVISOR (FIXED NETWORK)
8.	SH. RAJAN SINGLA	ADVISOR (ADMINISTRATION & PERSONNEL)
9.	SH. SUDHIR GUPTA	ADVISOR (QoS & MOBILE NETWORK)
10.	SH. M. KANNAN	ADVISOR (ECONOMIC)



Below Advisor Level

S.No.	Posts	SANCTIONED	WORKING
1.	JT. ADVISOR /DY. ADVISOR	17	17
2.	SR. PR. PRIVATE SECRETARY	02	02
3.	SR. RESEARCH OFFICER	24	17
4.	PR. PRIVATE SECRETARY	7	4
5.	TECHNICAL OFFICER	13	7
6.	SECTION OFFICER	15	14
7.	PRIVATE SECRETARY	13	11
8.	LIBRARIAN	1	1
9.	PERSONAL ASSISTANT	17	13
10.	ASSISTANT	36	30
11.	STENO 'D'	2	-
12.	LDC	5	5
13.	DRIVERS	14	14
14.	PCM OPERATOR	2	2
15.	DESPATCH RIDER	1	1
16.	GROUP-D	25	8
	TOTAL	<u>194</u>	<u>146</u>



5. TRAI officials were initially drafted on deputation from the Government Departments. These deputationists with relevant experience in the fields of telecommunication, economics, finance, administration, etc., are initially appointed for two years and, thereafter, requests are sent to different Government departments for extending their deputations. Seeking extension of deputations in respect of trained and experienced existing employees has often proved to be a time taking process and not always an effective process. While the scope, scale and

complexity of Authority's functions continue to grow at a fast pace, the Authority is continuously facing the problem of losing trained and experienced personnel due to frequent repatriation of the existing personnel to their parent departments. The Authority, therefore, constituted a cadre of officers and staff with special expertise relevant to the new field of telecom regulation by offering them the option of taking permanent absorption in TRAI. However, many middle and senior level officers who are on deputation did not exercise option for permanent absorption on account of unattractive terms and conditions.

B) Funding

6. TRAI is an autonomous body and it is wholly funded by the Grant received from the Consolidated Fund of India. The total expenditure of TRAI in the year 2005-06 was Rs. 14.70 crore (approx). Out of this, Rs. 1.44 crore was incurred during 2005-06 on the Institutional Capacity Building Project covering certain training and consultancy programmes.
7. TRAI is of the view that in order to perform effectively as an independent regulator, it should be funded from a minor portion of the licence fees recovered as a cost of administration from those whom it regulates, and it should be empowered with the flexibility in determining the terms and conditions of its employees to enable it to recruit talents/ professionals from non-government sources also at senior and other levels. It is worth mentioning that some other national regulatory bodies like IRDA and SEBI are funded out of the fees recovered from the sector they regulate and hence these authorities have the flexibility to use these funds as per the specific requirements of their functioning.



C) Human Resource

i) Recruitment

8. The Authority has constituted its own cadre of officers and staff by way of absorbing the officials who were on deputation

to TRAI from various Ministries and Departments. However, most deputationists, particularly in the senior and middle levels did not exercise option for permanent absorption. Therefore, the recruitment of personnel for its Secretariat by way of deputation from other Ministries / Departments / PSUs still continues. This is due to two reasons. One, the prevailing remuneration package does not attract independent talent with expertise and experience in the areas covered by the Authority. Two, among Government employees, the relevant expertise is available mainly in the Ministries or with the government owned Telecom Operators. Even for this group, the remuneration package, which the Authority is in a position to offer, is not handsome enough to attract appropriate talent. Hence, the Authority is facing major difficulties in getting appropriate personnel for its secretariat.

9. As regards the terms and conditions of service in the TRAI, the opinion in the Government circles has mostly been that these should be the same or almost similar to the Government Service Rules. Such a view overlooks the fact that the TRAI is a specialised body, which requires expertise in different areas of telecommunication and therefore needs to attract persons not only from the Government but also from the market. To attract the appropriate talent, TRAI's terms and conditions of service must be competitive with the prevailing market terms and conditions. At the very least, TRAI should be able to provide terms and conditions applicable in general to the public sector banks, insurance companies and PSUs.

ii) Training

10. The TRAI has given due importance to its HRD programme with a view to develop expertise and ability of its staff to handle vast amounts of data to monitor the various developments and proposals with respect to tariffs and quality of services standards, conduct and co-ordinate surveys on Quality of Service issues and other consumer related matters. This initiative has proved to be useful in organising and participating effectively in the consultative process for the



Authority, both through the preparation of consultation papers and analysing the feedback and responses received in writing and also during the Open House Discussion meetings, and in developing the policy framework to address the various issues which arise in regulating the telecom sector. In selecting/ designing training programmes/workshops, TRAI's endeavour is to impart diverse skills for macro level policy framing and handling of large mass of techno-economic operating details relevant for implementation and monitoring of the policies. The immense logistical as well as analytical preparation involved in this process imply the need for staff which is highly trained and knowledgeable and also adaptive and flexible in its approach and functioning. Since special programmes need to be identified or designed and run to meet the specific needs of TRAI staff to address the diverse specialised needs of their task, the Authority is working closely with a number of institutes and organizations such as Advanced Level Telecom Training Centre (AL TTC), National Productivity Council (NPC), Institute of Secretariat and Training Management (ISTM), ICWAI, RITES, etc. In addition, TRAI has also sponsored its officers for international trainings under the 'Institutional Capacity Building Project' for further developing their expertise within the organization.



11. Eighteen TRAI official were deputed during the year to attend training programmes conducted by the various international organizations viz. Interconnect Communications, UK, Australian Communications and Media Authority, Australia, South Asian Forum for Infrastructure Regulation (SAFIR), United States Telecommunication Training Insitute (USTTI), Asian Institute of Management, Manila and Institute of Public Private Partnership (IP3), Washington. The officials received valuable inputs through these trainings and the inputs have enriched their skills in their respective area of regulatory work. Forty officials of TRAI were also deputed for training programmes conducted by various training institutions within the country. The relevant details have been shown in Table 4.1 below.

Table 4.1 Statement showing officers nominated for Training Programme during the year 2005-06

A) International Trainings

Sl. No.	Name of the Training Institute	Place	Brief Particulars of the Training	No. of Officers sent
1.	United States Telecommunication Training Institute (USTTI)	San Jose, California, USA	Key Technologies for Building Internet Protocol Based Networks	1
2.	United States Telecommunication Training Institute (USTTI)	Washington, USA	Regulatory & Privatization Issues in Telecommunications	1
3.	South Asian Forum for Infrastructure Regulation (SAFIR)	Agra , India	Core Training Program on Infrastructure Regulation & Performance	2
4.	Interconnect Communications, UK	Bath, UK	Telecom Regulatory Master Class	6
5.	Australian Communication & Media Authority (AC MA)	Melbourne (Australia)	Training course on Spectrum Management & Frequency Assigning	2
6.	Asian Institute of Management	Manila, Philippines	Managing Public Stake-holders Programme	1
7.	Institute of Public Private Partnerships (IP3)	Washington (USA)	Best Practices in Regulating Telecom and IT Services	3
8.	Australian Communication Authority (ACA)	Canberra/ Melbourne	Training on Regulation of Telecommunication	2
		Total		18



B) Domestic Trainings

Sl. No.	Name of the Training Institute	Place	Brief Particulars of the Training	No. of Officers sent
1.	National Productivity Council (NPC)	Gangtok	E-Governance	2
2.	National Productivity Council	Mussorie & Port Blair	IT for Non-IT Executives	3 (2+1)
3.	Institute of Cost and Works Accountants of India (ICWAI)	Ooty	TDS filing of e-TDS Return	1
4.	National Productivity Council	Leh	Team Building & Team Work	1
5.	Institute of Secretariat Training & Management	Delhi	Cash &Accounts	1
6.	National Productivity Council	Kovalam	Management Information Resources	1
7.	National Productivity Council	Goa	IT Tools for Executive	3
8.	Advanced Level Telecom Training Centre (ALTTC)	Ghaziabad	(i) Training on Rural communications / (ii) 3G & Emerging Wireless Technologies (iii) GSM/GPRS Essential (iv) CDMA 1X ZTE	2 1 1 1
9.	RITES Ltd.	Noida	Internal Quality Auditors Training	10
10.	Institute of Secretariat Training & Management (ISTM)	Delhi	Microsoft Power Point & Introduction to Excel	4
11.	NITS	Noida	Auditors' Course for ISO:9001	1
12.	Institute of Secretariat Training & Management	Delhi	Effective Noting & Drafting	8
		Total		40



12. TRAI also has in place a system of in-house training and workshops, where distinguished national and international experts are invited for interaction with its officers on latest developments in the telecom sector. This is another step for capacity building by TRAI for its officers and staff.

iii) Seminar/Workshops

13. In order to keep pace with the developments taking place globally, the Authority has deputed members of its staff to the following international events, meetings and symposia to keep track of these developments and to gather valuable feedback/inputs for its own policy formulation. TRAI’s participation in deliberations at international level have not only contributed well to the international efforts being focused on issues, which are currently major regulatory concerns in India, but have also helped in keeping the TRAI officials aware of international practices.

Table 4.2 Seminars/Workshops / Meetings attended by Authority & TRAI officials during 2005-06

S. No.	Subject & Organizers	Place	Authority & No. of officials participated
1.	Global IPv6 Summit	Beijing (China)	1 – DA 1- SRO
2.	VOIP World Asia Pacific 2005	Sydney (Australia)	1 – Pr. Advisor 1- SRO
3.	ITU/BDT – Rightsizing Human Resources	Bangkok (Thailand)	1 – Advisor 1 – SRO
4.	Radio Asia – 2005 organized by Asian Media Information & Communication Centre, Asia Pacific Broadcasting Union & Singapore Exhibition Services	Singapore	1 – Jt. Adv.
5.	Invitation for presentation at the APT Operators Forum	Seoul	1- Dy. Adv.
6.	Course on Telecom Reform including World Dialogue of Regulation Forum	Singapore	1- Dy. Adv 1 – SRO



S. No.	Subject & Organizers	Place	Authority & No. of officials participated
7.	8th Annual Conference on Submarine Networks World 2005	Singapore	1 – Jt. Adv
8	8th Annual Asia Pacific Billing & Customer Care2005- Conf.	Singapore	1 – Dy. Adv.
9.	Annual VOIP Asia 2005	Singapore	1 – SRO
10.	Annual Convention of CABAA	Hong Kong	1 – Advisor
11.	Seminar/Meeting on Mobile Number Portability	Johannesburg (South Africa)	1 – Advisor 1 – SRO
12.	World Telecom Development Conference-2006 (WTDC-06)	Doha, Qatar	1 – Secretary 1 – Advisor
13.	25th APT (Steering) Study Group Meeting	Bangkok	2 – Advisors 1 – SRO
14.	APT Asia Pacific Forum on Telecom Policy & Regulation 2005 and ITU Plenipotentiary Conference	Singapore	1 – Pr. Adv. 1 – SRO
15.	ITU Forum of the Regional Working Group Meeting	Bangkok	1 – Pr. Advisor
16.	6th Annual Global Symposium for Regulator	Tunis, Tunisia	1- Advisor
17.	ITU's NGN event	London	1 – Pr. Advisor
18.	10th Session of the General Assembly of APT	Pakistan	1 – Pr. Adv.
19.	7 th SATRC Meeting	Bandos Island. Maldives	1 - Advisor 1 – Jt. Adv.
20.	Expert Review Committee of ITU's InfoDev Toolkit	Geneva	1 – Advisor
21.	ITU Project Meeting on NGN-GSI work	Geneva	1 – Dy. Adv
22.	APT preparatory meeting on WTDC-06	Bangkok	1 – Secretary
23.	ITU/BDT Regional Seminar on Fixed Mobile Convergence	Nairobi, Kenya	1 – Secretary
24.	Asia Pacific Tech. Regulation Forum/ ABU WRC-07 Preparatory Seminar	Kualalumpur	1 – Advisor



S. No.	Subject & Organizers	Place	Authority & No. of officials participated
25.	ITU(T) Seminar on Mobile Telecom& Fixed/Mobile Convergence	Ukraine	1 – Advisor
26.	Communication Asia - 2005 & Enterprise IT 2005 (Exhibition)	Singapore	1 – Dy. Adv.
27.	ITU Workshop on Ubiquitous Network Societies	Geneva	1 – Dy. Adv.
28.	GICT Workshop	USA (Washington)	1 – Secretary
29.	ITU Regional Workshop on Guidelines on the smooth transition of existing Mobile networks to IMT-2000	Syria	1 – Secretary
30.	ITU Workshop on Next Generation Network (NGN)	Bangkok	1 – Dy. Adv.
31.	Symposium on Network Security and SPAM at Jakarta organised. by APT and Ministry of Communications & Informatics, Indonesia	Indonesia	1 – SRO
32.	IIC International Regulatory Forum, organised by OFCOM.	London	1 –Jt. Adv. 1 – SRO
33.	Workshop on Dispute Resolution in Telecom Sector	Bangkok	1 – Dy.Adv.
34.	ITU New Initiatives Workshop 'What Rules for IP enabled NGN'	Geneva	1 – Pr.Adv.
	TOTAL		45

Right to Information Act

14. The Right to Information Act, 2005 which came into force from 12.10.2005, also applies to TRAI. Accordingly, in consonance with the provisions of the Act, the Authority has designated a Central Public Information Officer in TRAI assisted by a Central Assistant Public Information Officer. A Principal Advisor has been designated as the Appellate Authority under the Act. Name and designation of these officers and the information required to be published under Section 4 (1) of the RTI Act have been placed on the website of TRAI.



15. During the year, 30 applications were received under RTI Act. All these applications were promptly dealt with and replies have been sent within the stipulated period of 30 days.

ISO 9001 : 2000 Certification to TRAI

16. TRAI had obtained a licence under ISO 9001:2000 in December 2004 for its Quality Management System, from the certifying body i.e. Bureau of Indian Standards (BIS). The licence issued is operative for a period of 3 years. During this three year period, BIS will conduct three Surveillance Audits to ensure the continued improvement of the Quality Management System in TRAI. In pursuance to this, BIS conducted the First Surveillance Audit on 18.10.2005 and found the Quality Management System of TRAI to be effective.
17. The continued improvement in the system and procedures was also ensured by conducting four quarterly audits by the 23 internally trained auditors besides the monthly review meetings taken by Secretary, TRAI. The Top Management has also reviewed the Quality Management System twice during the year, during its meetings held in June, 2005 and March. 2006.



4.2 Audited Accounts of TRAI 2005-2006

AUDIT CERTIFICATE

I have audited the attached Balance Sheet of the Telecom Regulatory Authority of India as at 31 March 2006 and the Income and Expenditure Account/Receipts and Payments Account for the year ended on that date. Preparation of these financial statements is the responsibility of Telecom Regulatory Authority of India's Management. My responsibility is to express an opinion on these financial statements based on my audit.

I have conducted my audit in accordance with applicable rules and the auditing standards generally accepted in India. These standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. I believe that my audit provides a reasonable basis for my opinion.

Based on our audit, I report that:

1. I have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of audit;
2. Subject to the major observations given below and detailed observations in the Separate Audit Report annexed herewith, I report that the Balance Sheet and the Income and Expenditure Account/Receipts and Payments Account dealt with by this report are properly drawn up and are in agreement with the books of accounts:
 - Understatement of 'Excess of Expenditure over Income' by Rs 5.97 crore due to non provision for liabilities towards rent and maintenance charges, property tax and interest thereon and water, electricity, furnishing, common services, security, cleaning charges, etc **(Paragraph 2.1)**,



- Understatement of 'Excess of expenditure over Income' by Rs 1.12 crore due to non provision for the expected loss of abandoned fixtures **(Paragraph 2.2.1)**,
- Non maintenance of proper Fixed Assets Register giving complete details of fixed assets and non-conducting of physical verification of fixed assets **(Paragraph 2.3.1)**.

3. In my opinion and to the best of my information and according to the explanations given to me:

- (i) the accounts give the information required under the prescribed format of accounts;
- (ii) the said Balance Sheet, Income and Expenditure Account/ Receipts and Payments Account read together with the Accounting Policies and Notes thereon, and subject/due to the significant matters stated above and other matters mentioned in the Separate Audit Report annexed herewith, give a true and fair view:
 - a. In so far as it relates to the Balance Sheet of the state of affairs of the Telecom Regulatory Authority of India as at 31 March 2006; and
 - b. In so far as it relates to the Income and Expenditure Account of 'Excess of Expenditure over Income' for the year ended on that date.



Place: Delhi
Date: 25 September 2006

Sd/-
(VIKRAM CHANDRA)
Director General of Audit (P&T)

Audit Report on the Annual Accounts of Telecom Regulatory Authority of India for the year 2005-06

1. INTRODUCTION

1.1 The Telecom Regulatory Authority of India (TRAI) was established with effect from 20 February 1997, under an Act of Parliament known as the Telecom Regulatory Authority of India Act, 1997 to regulate telecom services and matters connected with or incidental thereto. The TRAI Act was amended by an ordinance effective from 24 January 2000, separating the adjudicatory and disputes functions from TRAI by establishing a Telecom Disputes Settlement and Appellate Tribunal (TDSAT).

1.2 Section 23 (2) of the Telecom Regulatory Authority of India Act, 1997 provides that the accounts of TRAI shall be audited by the Comptroller and Auditor General (C&AG) of India. Accordingly, the audit of annual accounts of TRAI for the year 2005-06 was conducted under Section 19 (2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971.

TRAI received Rs 13.20 crore from the Central Government during the year 2005-06 against the sanctioned grant of Rs 13.00 crore (Non-Plan) for the year and Rs 20 lakh (Non-Plan) from the amount lying in TRAI Account maintained with the Government. TRAI utilized the entire amount of grant (Non-Plan) received during the year. TRAI also received Rs 2.00 crore from the Central Government against a sanctioned Plan grant of Rs 3.00 crore. TRAI utilised Rs 1.44 crore (Plan fund) leaving out unutilised balance of Rs 0.56 crore.



2. COMMENTS ON ACCOUNTS

BALANCE SHEET

2.1 LIABILITIES

Current Liabilities and provisions (Schedule L)

Rs 3.22 crore

The above does not include Rs 5.97 crore payable to the State Trading Corporation (STC) on account of rent and maintenance charges (Rs 2.25 crore), property tax along with interest thereon (Rs 2.98 crore) pertaining to different periods from June 1997 to June 2001 (interest up to November 2002) and water, electricity, furnishing, common services, security, cleaning charges, etc (Rs 0.74 crore as detailed in Annex-1) pertaining to different periods from December 1997 to March 2001, which had arisen in terms of the lease agreements signed by TRAI for hiring of the 16th and 20th floors of Jawahar Vyapar Bhavan (JVB) of STC. Non-provision for these known liabilities was not only against TRAI's own Significant Accounting Policy No. 1 (iii) disclosed in Schedule-T but has also resulted in:

- (i) Understatement of 'Current Liabilities and Provisions' and 'Expenditure' by Rs 5.97 crore each.
- (ii) Understatement of 'Excess of Expenditure over Income' and overstatement of 'Capital Fund' by Rs 5.97 crore each.

Further, to the above extent, the disclosure given in Note 13 of Notes to Accounts (Schedule T) is incorrect.

Despite similar comments issued on the accounts for the years 2002-03 to 2004-05, no corrective action has been taken by the Management so far.



2.2 ASSETS

Fixed Assets (Schedule-H):

Gross Block:	Rs 6.48 crore
Accumulated Depreciation:	Rs 3.52 crore
Net Block:	Rs 2.96 crore

2.2.1 Wrong charging of depreciation of fixtures abandoned (June 2001) on the 16th and 20th floors of JVB of STC, wrong account of interest paid on delay in release of payments towards the cost of these fixtures as miscellaneous expenses instead of capitalizing the same and non-provision for the expected loss in their value in compliance with the mandatory requirements of Accounting Standard-10 issued by the Institute of Chartered Accountants of India have resulted (as detailed in Annex - 2) in:-

- (i) Understatement of 'Current Liabilities and Provisions' by Rs 1.12 crore.
- (ii) Understatement of 'Abandoned Assets' by Rs 26.23 lakh.
- (iii) Overstatement of 'Net deduction during the year relating to previous period from Capital Fund (Schedule I)' by Rs 26.23 lakh due to not writing back the previous year's excess expenditure on account of wrong charging of depreciation (Rs 9.16 lakh) and interest (Rs 17.07 lakh).
- (iv) Understatement of 'Expenditure (provision for expected loss of abandoned assets)' by Rs 1.12 crore.
- (v) Understatement of 'Excess of Expenditure over Income' by Rs 1.12 crore.
- (vi) Overstatement of 'Capital Fund' by Rs 86.36 lakh.

Despite similar comments issued on the accounts for the years 2002-03 to 2004-05, no corrective action has been taken by the Management so far.



2.2.2 The Net Block of Fixed Assets includes Rs 1.17 lakh, representing the written down value of a laptop lost (September 2001) from the residence of a Consultant. However, neither had the value of this laptop been removed from the Schedule of Fixed Assets nor had the loss on this account been recovered from the Consultant, in terms of the existing Government orders, which has resulted in:

- (i) Overstatement of 'Net Block of Fixed Assets' by Rs 1.17 lakh.
- (ii) Understatement of 'Other Current Assets-Claims Receivable (Schedule R)' by Rs 1.17 lakh.

Despite similar comments issued on the accounts for the years 2003-04 and 2004-05, no corrective action has been taken by the Management so far.

2.3 GENERAL

2.3.1 The correctness of fixed assets as depicted in the accounts could not be verified due to non maintenance of complete details of fixed assets like location; specifications; complete cost details and particulars of assets; details of the officers to whom assets issued for use at their residence, etc at one place in the Fixed Assets Register as well as due to not conducting the physical verification of fixed assets during the year.

2.3.2 For the year 2005-06, the Authority prepared separate set of accounts (Receipts and Payments Account, Income and Expenditure Account and Balance Sheet) for the Plan fund transactions. These transactions were not incorporated under main accounts of TRAI and the Authority did not prepare consolidated accounts exhibiting a complete panoramic view of all its activities.



2.4 EFFECTS OF AUDIT COMMENTS ON THE ACCOUNTS

The net impact of the comments given in the preceding paragraphs is that Assets as on 31 March 2006 were understated by Rs 26 lakh, Liabilities were understated by Rs 7.09 crore, 'Excess of Expenditure over Income' for the year was understated by Rs 7.09 crore, 'Net deductions during the year relating to previous period from Capital Fund' were overstated by Rs 26 lakh and 'Capital Fund' was overstated by Rs 6.83 crore.

2.5 DEFICIENCIES OF MINOR NATURE

The deficiencies of relatively minor nature in the annual accounts of TRAI for the year 2005-06 have been separately brought to the notice of the Chairperson, TRAI through the Management Letter No. Report-II / TRAI / A/Cs / 2005-06 / 750 dated 25 September 2006.

Place: Delhi

Date: 25 September 2006

Sd/-
(VIKRAM CHANDRA)
Director General of
Audit (P&T)



Annex - 1

(Referred to in paragraph no 2.1)

Statement showing outstanding claims of State Trading Corporation of India against Telecom Regulatory Authority of India towards water charges, electricity charges, furnishing charges, arrears of rent, common services and security & cleaning charges relating to the period December 1997 to March 2001.

SI No.	Nature of Claim	Floor	Period	Amount (Rs in lakh)
1.	Water Charges	---	March 1998; 6 July 1999 to 7 September 1999 and 3 December 1999 to 4 December 2000	0.15
2.	Electricity Charges	---	5 December 1997 to 9 January 1998 and 2 November 1999 to 5 January 2000	1.59
3.	Furnishing Charges	16th Floor	August 1999 to March 2001	46.71
		20th Floor	August 1999 to March 2001	<u>17.46</u> 64.17
4.	Arrears of rent, common service charges and security & cleaning charges	16th Floor	February 2000	20.55
		20th Floor	February 2000	<u>07.68</u> <u>28.23</u> (-) *20.12 08.11
Total Payment due (SI. Nos. 1 to 4) =				74.02

(* Rs 20.12 lakh already paid by TRAI)



Annex - 2

(Referred to in paragraph no. 2.2.1)

Details of impact on different heads of accounts of wrong accountal of fixtures abandoned at 16th & 20th floors of JVB

1. Gross Block of Furniture & Fixtures:

For this figure of Rs. 122.22 lakh, refer Note 10 (b) of Notes to current year's Accounts (Schedule T).

2. Net Block of Furniture & Fixtures:

For this figure of Rs.86.36 lakh, refer Note 10 (b) of Notes to current year's Accounts (Schedule T).

3. Understatement of Current Liabilities & provisions and abandoned assets:

This has been worked out as under :

- | | | |
|---|-----|------------|
| (i) Net Block of Fixtures as on 31-3-2002 left at JVB | =Rs | 86.36 lakh |
| (ii) Depreciation actually charged on these fixtures for 2001-02 (Rs 122.22 lakh X 10%) | =Rs | 12.22 lakh |
| (iii) Depreciation for 3 months (i.e., from 1-4-01 to 30-6-01) which should have been charged on the above fixtures | =Rs | 3.06 lakh |
| (iv) Excess depreciation charged [(ii) - (iii)] during 2001-02 | =Rs | 9.16 lakh |
| (v) Net Block of above fixtures as on 30-6-01 [(i) + (iv)] | =Rs | 95.52 lakh |
| (vi) Interest paid for delayed release of payments [refer Note 12 (II) of Notes to Accounts forming part of accounts of TRAI for the year 2001-02] and charged as misc. expenses during 2001-02 | =Rs | 17.07 lakh |



(vii) Value of the abandoned assets
(above fixtures)
as on 31-3-02 [(v) + (vi)].
Provision for their loss
should have been made =Rs 112.59 lakh

4. Overstatement of 'Net deductions during the year (relating to previous period) from Capital Fund (Schedule I)' by Rs 26.23 lakh due to not writing back of excess expenditure charged in previous period (on account of excess depreciation and interest as misc. expenses) as previous period income:

For excess depreciation refer item No. 3 (iv) above and for interest as misc. expenses refer item No. 3 (vi) above.

5. Understatement of provision for loss of assets, understatement of 'Excess of Expenditure over Income' and overstatement of Capital Fund:

(a) For understatement of provision for loss of Rs. 112.59 lakh refer item No.3 (vii) above which has consequential effect of understatement of 'Excess of Expenditure over Income' by the same amount.

(b) For overstatement of Capital Fund:

Total Provision for loss required to be made during 2003-04 =Rs 112.59 lakh

Less depreciation to be written back which was excess charged during 2001-02 =Rs 9.16 lakh
= Rs 103.43 lakh

Less interest on delayed payments to be written back which was wrongly charged as misc. expenses during 2001-02 =Rs 17.07 lakh

Net impact which resulted in overstatement of Capital Fund =Rs **86.36 lakh**



TELECOM REGULATORY AUTHORITY OF INDIA
FINAL ACCOUNTS
2005-2006





TELECOM REGULATORY AUTHORITY OF INDIA

Receipt and Payment Account for the year ending 31st March,2006

(in Rupees)

A/c Code	Receipts	Current Year as on 31/03/06.	Previous Year as on 31/03/05	A/c Code	Payments	Current Year as on 31/03/06	Previous Year as on 31/03/05
1	To Balance Brought down:			13	By Chairperson & Members :		
1.1	To Bank	19455509	1373218	13.1	By Pay & Allowances	1967181	1952068
1.2	To Cash in hand	29604	15511	13.2	By Other benefits	250273	181571
2	To Fee, Charges & Fine			13.3	By Travelling expenses :		
2.1	To Fees	2000	27400	13.3.1	By Overseas	239473	1826251
2.2	TO Charges			13.3.2	By Domestic	1403756	991105
2.3	To Fines		8704689	13.4.1	By Retirement Benefits	143511	
2.4	To Other (specify)			14	By Officers :		
3	To Grants:	132000000	124000000	14.1	By Pay & Allowances	24862841	20446752
3.1	To Accounts with Govt.			14.2	By Retirement benefits	764430	470544
3.2	To Other (specify)			14.3	By Other benefits	3683242	1874151
4	To Gifts			14.4	By Travelling expenses :		
5	To Seminars & Confrences			14.4.1	By Overseas	5597686	5025989
6	To Sales of Publications	4500	2030	14.4.2	By Domestic	2361235	1981980
7	To Income on Invt. & Deposits			15	By Staff		
7.1	To Income on investments			15.1	By Pay & Allowances	9505888	8496137
7.2	To Income on Deposits			15.2	By Retirement benefits	404357	251898
8	To Loans:			15.3	By Other benefits	848152	668377
8.1	To Government			15.4	By Travelling expenses :		
8.2	To Other (specify)			15.4.1	By Overseas		
9	To Sales of Assets			15.4.2	By Domestic	121187	172498
10	To Sale of Investments			16	By Hire of Conveyance	954639	753836
11	To Recoveries from pay bills			17	By Wages	2800	1085103
11.1	To Loans & Advances			18	By Overtime	359869	346777
	Principal Amount			19	By Honorarium	0	26000
11.2	To Intrs. On Loan & Advncs.	6334	17823	20	By Other office exps.	41985339	36932157
11.3	To Miscellaneous	488954	518172	21	By Expenditure on Research		
12	Miscellaneous Income	16915	49057	22	By Consultation exps.	576554	1302000
20	To Recovery of Tel. & Petrol			23	By Seminars & Confrcncs	2421693	2158411
33.1.1	To Loans & Advances		50770	24	By Publications of TRAI		
33.1.3.4	To Recov. Of LTC Advance			25	By Rent & Taxes	23020263	22303407
33.3	Advances others		1385814	26	By Interest on Loans		
40.1	To Capital Fund	648462	744793	27	By Promotional Exps.		
42.2.1	To Deposits from Contractors	340000	50000	28	By Membership fee	210907	173118
42.5	To Provisions			29	By Subscription	164810	155500
42.6	To Other Liabilities	1040	9526	30	By Purchase of Fxd.Assest	3814847	4182871
46.1	To claim receivable	265135	1229870	31.1	By Investments		
46.2	To security deposits		20400				
46.5	To Others	155701		31.2	By Deposits		
33.1.2	To loans and advances	25869		32	By Security Deposits		
				33	By Loans and advances to		
				33.1	By Employees		
				33.1.1	By Authority		
				33.1.2	By Officers :	3524880	467621
				33.1.3	By Staff		689770
				33.2	By Suppliers and Contractors	1527039	656541
				33.3.	By Others	63623	
				34	By Repayment of loan		
				35	By others (WBP 4555IN)		
					By Leave Salary and Pension		
				35.1	By Contribution	2988681	1712369
				35.2	By Audit Fee	152280	149040
				35.3	By Misc.		948000
				42.2.1	Deposits of contractors		
				44.1	By Capital Work in progress		
				46.5	By other current Assets		332118
				46.2	By securities deposits	3600	
				36	By Balance carried down		
				36.1	By Bank	19481665	19455509
				36.2	By Cash	33322	29604
TOTAL		153440023	138199073			153440023	138199073

Sd/-
Pr. Advisor (FA&IFA)Sd/-
Secretary(Vacant)
MemberSd/-
Chairperson

TELECOM REGULATORY AUTHORITY OF INDIA
Income and Expenditure Account for the period from
1st April, 2005 to 31st March, 2006

(in Rupees)

A/c Code	Expenditure	Schedule	Current Year as on 31st March,06	Previous Year as on 31st March,05	A/c Code	Income	Schedule	Current Year as on 31st March,06	Previous Year as on 31st March,05
13	To Chairperson & Members :				2	By Fee, Charges & Fine	A	2000	27400
13.1	To Pay & Allowances		1502163	1390143	2.1	By Fees			
13.2	To Other benefits	C	271044	137978	2.2	By Charges			
13.3	To Travelling expenses :				2.3	By Fines			
13.3.1	To Overseas			813217	2.4	By Other (specify)			
13.3.2	To Domestic		1388568	1044647	3	By Grants:	B		
13.4	To Retirement benefits	D	143511	98400					
14	To Officers :				3.1	By Accounts with Govt.		130000000	130000000
14.1	To Pay & Allowances		25238465	20867579	3.2	By Other (specify)			
14.2	To Retirement benefits	D	764430	470544	4	By Gifts			
14.3	To Other benefits	C	4026288	1918331	5	By Seminars & Conferences			
14.4	To Travelling expenses :				6	By Sales of Publications		4500	2030
14.4.1	To Overseas		5680818	4403335	7	By Income on Invs. & Deposits			
14.4.2	To Domestic		2312576	1868868	7.1	By Income on investments			
15	To Staff				7.2	By Income on Deposits			
15.1	To Pay & Allowances		9443633	8698098	11.2	By Intrs. On Loan & Advncs.		6335	17823
15.2	To Retirement benefits	D	404357	251898	12	By Miscellaneous Income		16915	49057
15.3	To Other benefits	C	1107003	665370	12.1	By Gain on Sale of assets			
15.4	To Travelling expenses :					By excess of expenditure		2480846	
15.4.1	To Overseas					over income			
15.4.2	To Domestic		121187	143833		(Transferred to Capital Fund Account)			
16	To Hire of Conveyance		916522	752717					
17	To Wages			152900					
18	To Overtime		380688	360736					
19	To Honorarium			26000					
20	To Other office exps.	E	43348873	39749305					
21	To Expenditure on Research								
22	To Consultation exps.		1035935	1302000					
23	To Seminars & Confrncs		2838672	2207582					
24	To Publications of TRAI								
25	To Rent & Taxes		22680000	22505250					
26	To Interest on Loans								
27	To Promotional Exps.								
28	To Membership fee	F	183696	0					
29	To Subscription	G	189298	115945					
35	To Others								
	To Leave Salary & Pension								
35.1	Contribution		3007836	2759525					
35.2	To Audit Fee		112770	132525					
35.3	To Misc.			948000					
37	To Depreciation	H	5274909	5776625					
48	To Loss on (assets written off)		137354	116830					
49	To Bad Debts written off								
50	To prov. for bad & doubtful debts								
	To Excess of income over expnd.								
	(Transferred to Capital Fund A/c)			10418129					
	Total		132510596	130096310		TOTAL		132510596	130096310

Sd/-
Pr. Advisor (FA&IFA)

Sd/-
Secretary

(Vacant)
Member

Sd/-
Chairperson

TELECOM REGULATORY AUTHORITY OF INDIA
Balance Sheet as on 31st March, 2006

		(in Rupees)							
A/c Code	Liabilities	Schedule	Current Year as on 31st March, 06	Previous Year as on 31st March, 05	A/c Code	Assets	Schedule	Current Year as on 31st March, 06	Previous Year as on 31st March, 05
40	Funds				43	Fixed Assets	H		
40.1	Capital Fund	I	76603024	67119013	43.1	Gross Block at Cost		52597317	58295417
						Less: Accumulated depreciation		31580059	29975436
					43.2				
	Less: Excess of Expenditure over Income (Previous year Excess of income over exp.)		-2480846	10418129	43.3	Net Block		21017258	28319981
						Assets left at JV Bhavan			
						Gross Block at Cost		1222170	
	Balance		74122178	77368584		Less: Accumulated Deprec.		-3586538	
						Net Block of assets left at JVB		8635632	
						Total Net Block :		29652890	
40.2	Other Funds (Specify)				44	Capital Work-in-Progress	M		0
41	Reserves	J			31	Investment & Deposits	N		
8	Loans :	K			31.1	Investment			
8.1	Government				31.2	Deposits			
8.2	Others				33	Loans and Advances	O	8271901	3182228
42	Current Liabilities and provisions	L	32154749	24937707	3.1	Account with Govt.	S	37100000	39100000
					45	Sundry Debtors	P		
					36	Cash and Bank Balance	Q	19514987	19485112
					46	Other Current Assets	R	11737149	12218970
	TOTAL		106276927	102306291		TOTAL		106276927	102306291

Sd/-
Pr. Advisor (FA&IFA)

Sd/-
Secretary

(Vacant)
Member

Sd/-
Chairperson



SCHEDULE - A FEES, CHARGES & FINE

(In Rupees)

A/c Code	Description	Current year as on 31st March 06	Previous year as on 31st March,05
2.1	Fee		
2.1.1	Registration Fee		
2.1.2	Adjustication fee		
2.1.3	Document access fee		
2.1.4	Others	2000	27400
	Total	2000	27400
2.2	Charges		
2.2.1	Government		
2.2.2	MTNL		
2.2.3	VSNL		
2.2.4	Others PSUs		
2.2.5	Private operators		
	Total		0
2.3	Fines		
2.3.1	Government		
2.3.2	MTNL		
2.3.3	VSNL		
2.3.4	Others PSUs		
2.3.5	Private operators		
	Total		0
2.4	Others (specify)		
	Grand Total	2000	27400



Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)

SCHEDULE - B GRANTS

(In Rupees)

A/c Code	Description	Source	Opening Balance as on 1st April,05	Sanctioned grant for the year	Grants received during the year	Closing balance as on 31st March,06
3.1	Government (Account with Government)	Budget MoF	39100000	130000000	132000000	37100000
	Total					
3.2	Other Grants					
	Total					
	Grand Total		39100000	130000000	132000000	37100000
	Previous Year		33100000	130000000	124000000	39100000
	Note: Also see Schedule 'S' and Note No.8 of Schedule 'T'					

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - C OTHER BENEFITS

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
13.2	Chairperson and Members		
13.2.1	Leave Travel Concession	70220	
13.2.2	Medical Benefits	36878	55105
13.2.3	Others (specify)	163946	82873
	Total	271044	137978
14.3	Officers		
14.3.1	Bonus Ex-gratia		
14.3.2	Leave Travel Concession	1931933	591082
14.3.3	Medical Benefits	1992385	1220630
14.3.4	Welfare Expenses	101970	106619
	Total	4026288	1918331
15.3	Staff		
15.3.1	Bonus Ex-gratia	127415	
15.3.2	Leave Travel Concession	312651	131396
15.3.3	Medical Benefits	666937	523894
15.3.4	Welfare Expenses		10080
	Total	1107003	665370
	Grand Total	5404335	2721679



Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)

Schedule - D
RETIREMENT BENEFITS

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
13.4	Authority		
13.4.1	Contribution to PF etc.	143511	98400
13.4.2	Pension		
13.4.3	Gratuity		
13.4.4	Other		
	Total	143511	98400
14.2	Officers		
14.2.1	Contribution to PF etc.	764430	470544
14.2.2	Pension		
14.2.3	Gratuity		
14.2.4	Other		
	Total	764430	470544
15.2	Staff		
15.2.1	Contribution to PF etc.	399775	251898
15.2.2	Pension		
15.2.3	Gratuity		
15.2.4	Other	4582	
	Total	404357	251898
	Grand Total	1312298	820842



Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)

SCHEDULE - E
OTHER OFFICE EXPENSES

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
20.1	Repair and Maintenance		
20.1.1	Buildings	304850	
20.1.2	Office Equipments	1502701	2794336
20.1.3	Vehicles	680962	694234
20.1.4	Others	69902	256046
20.2	Electricity and Water	2273166	2210797
20.3	Insurance and Bank Charges	115094	96620
20.4	Printing	3078871	3061332
20.5	Stationery	1688114	1481458
20.6	Postage etc.	258963	375530
20.7	Telephones	8022471	3824525
20.8	Legal Fee and Expenses	13614050	10406843
20.9	Vehicles Petrol/Diesel	1458265	1421035
20.10	Miscellaneous	10281464	13126549
	Total	43348873	39749305



Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)

SCHEDULE - F MEMBERSHIP FEE

(In Rupees)

A / C Code	Description	Purpose	Period	Amount	
				Current Year as on 31st March, 06	Previous Year as on 31st March, 05
28.1					
	TERI	For SAFIR	5 months	18335	
	NCAER	For Library	12 months	5000	5000
	INDIA HABITAT CENTRE	For Membership	12 months		10000
	ITU - D Geneva	Participation in the activities of ITU-D as sector member	12 months	145083	147243
	PTC India Foundation, New Delhi	For Membership in r/o Sh S. N. Gupta, Advisor	12 months		675
	Institute of Electrical Engineering(IEE)-UK	For Membership in r/o Sh Rajender Singh, Advisor	12 months	5937	4844
	IEEE, USA	For Membership in r/o Dr. D.P.S. Seth, Member	12 months	3341	796
	International Union of Radio Scci.	Registration Fee	12 months	6000	
		Total		183696	168558

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - G SUBSCRIPTION

(In Rupees)

A/C Code	Description	Purpose	Period	Amount	
				Current Year as on 31st March, 06	Previous Year as on 31st March, 05
	The Divya Yog Mandir Trust	Subscription for magazine	12 months		150
	Swamy Publishers (P) Ltd.	Subscription for Swamysnews	3 months	700	500
	Company Law Journal	Subscription for Company Law Journal 2005	12 months	3825	1025
	Eastern Book Co., Lucknow	Subscription for supreme Court Cases 2005	12 months	5935	1147
	ITU-T & ITU-R	Online subscription for obtaining latest information on telecommunication	12 months	171179	112890
	VOICE	Subscription of Technical Magazine	12 months	84	83
	Central News Agency	Swamy News	5 months	602	
	Central News Agency	Network magazine	3 months		150
	Society for Environmental Communications	Subscription of Magazine	12 months		288
	New Scientists	Subscription of Magazine	12 months		6685
	Total			189298	115945

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)

SCHEDULE-H
FIXED ASSETS AS ON 31.03.2006

A/c Code	Net Block Description	Gross Block				Depreciation				As on 31-Mar-06	As on 01-Apr-05	Additions during the year	Deductions during the year	Cost as on 31-Mar-06	
		Cost as on 01-Apr-05	Additions during the year	Deductions during the year	Cost as on 31-Mar-06	As on 01-Apr-05	For the year	Adjustments	As on 31-Mar-06						
43.3.1	Land														
43.3.2	Building														
43.3.3	Office Equipments	7664520	615134	221102	8058552	2726443	857523	83748	3500218	4938077		379743		4558334	
43.3.4	Vehicles	4410781			4410781	2917517	418972		3336489	1493264		418972		1074292	
43.3.5	Furniture and Fixtures	6998506	811307		7809813	3621331	659528		4280859	3377175	151779			3528954	
43.3.6	Electrical Appliances	825222	650935		1476157	506060	57884		563944	319162	593051			912213	
43.3.7	Airconditioners	400761	221446		622207	268257	70113		338370	132504	151333			283837	
43.3.8	Computers	23249184	4327387		27576571	14618759	2889090		17507849	8630425	1438297			10068722	
43.3.9	Book and Publications	2524273	118963		2643236	1730531	321799		2052330	793742				590906	
43.3.10	Others, if any														
	Total	46073247	6745172	221102	52597317	26388898	5274909	83748	31580059	19664349	2334460	1001551	1001551	21017258	
	Assets left at JVB														
	Furniture & Fixtures	11677132			11677132	3425864			3425864	8251268				8251268	
	Electrical Appliances	545038			545038	160674			160674	384364				384364	
	Sub-Total :	12222170			12222170	3586538			3586538	8635632				8635632	
	G. Total	58295417	6745172	221102	64819487	29975436	5274909	83748	35166597	28319981	2334460	1001551	1001551	29652890	
	Previous Year	54709425	3747904	161912	58295417	24239646	5776625	40835	29975436	30469779	498336	2648134	2648134	28319981	

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - I FUNDS

(In Rupees)

A/c Code	Description	Opening Balance as on 1st April,05	Additions during the year	Deductions during the year	Closing Balance as on 31st March,06
40.1	Capital Fund	77368584	648462	3894868	74122178
40.2	Other Funds				
	Total	77368584	648462	3894868	74122178
	Previous year	67549717	10990117	1171250	77368584

* Deductions during the year includes a sum of Rs. 24,80,846/- as excess of exp. over income.

SCHEDULE - J RESERVES

(In Rupees)

A/c Code	Description	Opening Balance as on 1st April,05	Additions during the year	Deductions during the year	Closing Balance as on 31st March,06
41.1		0	0	0	0
41.2		0	0	0	0
	Total	0	0	0	0

SCHEDULE - K LOANS

(In Rupees)

A/c Code	Description	Opening Balance as on 1st April,05	Additions during the year	Deductions during the year	Closing Balance as on 31st March,06
41.1		0	0	0	0
8.1	Government	0	0	0	0
8.2	Other (specify)	0	0	0	0
	Grand Total	0	0	0	0

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)

SCHEDULE - L CURRENT LIABILITIES AND PROVISIONS

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
42.1	Sundry Creditors		
42.2	Deposits from		
42.2.1	Contractors	650000	310000
42.2.2	Operators and Others	8704689	8704689
42.3	Income received in Advance		
42.4	Outstanding Expenses	5039950	3713555
42.5	Provisions	15006274	10496157
42.6	Other Liabilities	2753836	1713306
	Total	32154749	24937707

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - M CAPITAL WORK IN PROGRESS

(In Rupees)

A/c Code	Description	Opening Balance as on 1st April,05	Additions during the year	Deductions during the year	Closing Balance as on 31st March,06
44.1	CWIP	0	0	0	0
44.2					
	Total	0	0	0	0
	Pre.Year	0	0	0	0

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - N INVESTMENTS AND DEPOSITS

(In Rupees)

A / c Code	Description	Opening Balance as on 1st April,05	Additions during the year	Deductions during the year	Closing Balance as on 31st March,06	
					Cost	Market value
31.1	Investments	0			0	0
31.2	Deposits				0	0
	Total	0	0	0	0	0
	Previous Year					

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - O LOAD AND ADVANCES

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
33.1	Advances to Employees		
33.1.1	Chairperson & Members		
33.1.1.1	For House Building		
33.1.1.2	For Purch. Of conveyance		
33.1.1.3	TA advance		
33.1.1.4	LTC and other advance		
33.1.2	Officers		
33.1.2.1	For House Building	2881175	934714
33.1.2.2	For Purch. Of conveyance	821379	364945
33.1.2.3	TA advance	181763	87609
33.1.2.4	LTC and other advance	1067228	39397
33.1.3	Staff		
33.1.3.1	For House Building	403649	444881
33.1.3.2	For Purch. Of conveyance	169943	167640
33.1.3.3	TA advance	0	12000
33.1.3.4	LTC and other advance	140920	115860
33.2	Advances to Supplier/Contractor	2471114	944075
33.3	Others (as per details)	134730	71107
	Total	8271901	3182228

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)

SCHEDULE - P SUNDRY DEBTORS

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
45.2	Unsecured Debtors	0	0
45.2.1	Upto six month old	0	0
45.2.2	More than six month old	0	0
45.2.2.1	Considered good	0	0
45.2.2.2	Considered doubtful	0	0
	Total (x)	0	0
	Less :		
	Prov. for Bad & Doubtful	0	0
	Debts alerady made	0	0
	Add/Subtract prov. Reqrd.	0	0
	During the year	0	0
	Total (y)	0	0
	Total (x-y)	0	0

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - Q
CASH AND BANK BALANCES

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
36.1	Balance with Schedule Banks		
36.1.1	Current Account	19481665	19455508
36.2	Cash in Hand	33322	29604
	Total	19514987	19485112

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - R OTHER CURRENT ASSETS

(In Rupees)

A/c Code	Description	Current year as on 31st March,06	Previous year as on 31st March,05
46.1	Claims Receivable	682935	948070
46.2	Security Deposits	10386640	10383040
46.3	Prepaid Expenses	436532	501117
46.4	TRAI Publication		
46.5	Other (Specify) (See Note 12)	231042	386743
	Total	11737149	12218970

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



SCHEDULE - S **ACCOUNTS WITH GOVERNMENT**

(Please refer to schedule 'B')

(In Rupees)

	Opening Balance	Amount due	Amount received	Closing balance
	39100000	130000000	132000000	37100000
TOTAL	39100000	130000000	132000000	37100000
See Note No.8 of Schedule T				

Sd/-
(S.S. Panwar)
S.R.O. (A/cs.)



Additional Information

Funds received from Government and utilised during the year

(In Rupees)

Year	Amount Received	Utilisation during the year							Fixed Assets	Current Assets
		Salary		Travelling Allowance			Other Expenses			
		Members	Others	Members	Others	Others				
2005-06	132000000	1967181	34368729	1643229	8080108	78931800		3814847	24634129	
2004-05	124000000	1952068	28942889	2817356	7180467	70544259		4182871	21631163	
<p>Notes:</p> <ul style="list-style-type: none"> - All Expenses Other than Salary and Travelling Allowance have been clubbed under the head "Other Expenses" for this Schedule - Amount Received does not include other receipts apart from Grant from Government - Current Assets do not include Account with Government - Current Assets include Cash in Hand/Bank Balance/FDR/Personal Advance to Employees - Negative Balance of utilization during the year was met out of encashment of Opening Balance in Fixed Deposits. 										



Schedule - T

Accounting Policies and Notes to Accounts

A. Significant Accounting Policies

1. Financial Statements

- i) The financial statements have been prepared in the formats approved by the Government of India, Ministry of Communication in consultation with CAG of India issued vide Gazette Notification No. GSR 236(E) dated March 31, 1999.
- ii) Accounts have been prepared on accrual basis for the current year i.e., 2005-06 - There is no change in Method of Accounting from the preceding year.
- iii) Provision for all the undisputed and known liabilities have been made in the Books of Account.
- iv) Figures have been rounded off to the nearest of rupee.
- v) Contingent liabilities are disclosed after careful evaluation of facts and legal aspects of the matter involved.
- vi) As per clause 32 of the TRAI Act, 1997, TRAI is exempt from tax on wealth and income.

2. Transactions in Foreign Currencies

Transactions denominated in foreign currencies are recorded at the exchange rate prevailing at the time of transaction.

3. Depreciation

- (a) Depreciation on Fixed Assets is provided on Straight Line Method at the rates specified in Schedule XIV of the Companies Act, 1956 except for the categories mentioned below on which higher rates of depreciation have been applied, like applied in the Accounts for preceding years:



Category	Minimum prescribed depreciation rate as per Companies Act, 1956	Depreciation rate applied
Office Equipments	4.75%	10.00%
Furnitures and Fixtures	6.33%	10.00%
Electrical Appliances	4.75%	10.00%
Airconditioners	4.75%	10.00%
Books and Publications	4.75%	20.00%

(b) As admitted in the previous years report, the following items have been written off after taking approval of the Competent Authority vide office order No. 21-7/2000-GA dated 10.11.2005 and a sum of Rs. 83,748/- on account of Depreciation have been written back as per details given below:

List of damaged Articles :

Sl. No.	Year of purchase	Particular of Asset	Book Value	Accumulated depreciation upto 2004-05	WDV as on 1.03.2005
1.	1997-98	Erickson Mobile Handset	15255	11443	3812
2.	1997-98	Nokia Mobile Handset	15867	11908	3959
3.	2000-01	Motorola Handset (2Nos.)	33000	16500	16500
4.	2000-01	Samsung Handset (2 Nos.)	27990	12595	15395
5.	2001-02	Seimens Handset (2 Nos.)	22000	8708	13292
6.	2003-04	Motorola Handset	7000	1108	5892
7.	2001-02	Samsung Handset (2 Nos.)	17600	6453	11147
8.	2001-02	Nokia Handset	9200	2837	6363
		Total :	147912	71552	76360



List of Lost Items :

Sl. No.	Year of purchase	Particular of Asset	Book Value	Accumulated depreciation upto 2004-05	WDV as on 1.03.2005
1.	2000-01	Samsung Mobile Handset (2 Nos.)	27990	2100	25890
2.	2001-02	Samsung Mobile Handset	8800	1100	7700
3.	2002-03	Nokia Mobile Handset	10600	2562	8038
4.	2003-04	Nokia Mobile Handset	7400	1048	6352
5.	2003-04	Nokia Mobile Handset	7400	986	6414
6.	2000-01	Samsung Mobile Handset	11000	4400	6600
		G. Total :	73190	12196	60994

(c) Depreciation on items that were either lost, damaged/ unusable or left at Jawahar Vyapar Bhavan on 30.06.2001 has been charged at pro-rata basis till the date they were available for use and will be written off from the books of accounts after fulfilling codal formalities.

(d) **Writing off of the claim paid in excess to NIDC.**

The office of TRAI was earlier located on 16th and 20th floors of JV Bhvan. Before occupying the office space there, TRAI had got the area renovated through National Industrial Development Corporation (NIDC). TRAI had made an extra payment of Rs. 4,72,915/- to NIDC for the renovation work done by them. Later on, TRAI came to know that this payment was made in excess and accordingly an appeal was filed to Law Secretary for refund of this amount from NIDC. As NIDC being liquidated and it has no funds for paying to TRAI, the Authority in their meeting held on 21.03.2006 have decided to write off this claim of Rs. 4,72,915/- plus interest @ 15% from 22.04.02 to 20.03.06 of TRAI as loss on account of excess payment made to NIDC as a result of the arbitration award vide letter No. 6-2/97-TRAI (GA) dated 24.03.2006.

Since the said amount was not shown as recoverable in the Books of Account at that time, hence no accounting treatment has been given in the current year's account.

4. Retirement Benefits

a) Provision for Leave Salary and Pension Contribution up to 31.03.2006 has been provided in Books of Accounts at the rates prescribed by Government of India in Fundamental Rules.



5. Insurance claims are accounted for when TRAI's right to receive claim is established by Insurance Company.

B. Notes on Accounts

6. Last Year's Figures

- i. The closing balance under various heads of accounts as appearing in the Ledger as on 31.03.2005 have been correctly brought down as opening balances on 01.04.2005 in the Ledgers.
- ii. The final accounts viz., Receipt and Payment Account, Income and Expenditure Account, Balance Sheet as well as various Schedules thereof contain the previous year's audited figures for comparison as prescribed. However, previous year's figures have been re-grouped or re-arranged.
- iii. All expenses pertaining to the earlier years for which provision was available in the Accounts of 2005-06 have been identified and debited to respective provision heads.
- iv.
 - a) The provision made in the Accounts for the preceding years, to the extent of short/excess provision have been debited /credited directly to Capital Fund (40.1).
 - b) Expenses relating to earlier years or adjustments relating to earlier years which were pointed out by the auditors in their report on the previous year accounts the necessary adjustment entries have been passed in the Capital Fund (A/c 40.1) directly.
 - c) The effect of all transactions of additions/deductions in account code 40.1 (Capital Fund) has been reflected in Schedule – I to the Balance Sheet.



7. Provision made in respect of Liabilities for 2005-2006

- a) Outstanding liabilities for the year 2005-06 to the tune of Rs. 2,28,00,060/- have been assessed, based on the bills/demands available and the payments made upto 31.05.2006 for the said year, as per details hereunder:

Account Code	Nomenclature	Provisions created in respect of liabilities for 2005-06
42.4	Outstanding Expenses	Rs. 50,39,950
42.5	Provisions	Rs. 1,50,06,274
42.6	Other Liabilities	Rs. 27,53,836
	Total	Rs. 2,28,00,060

- b) A sum of Rs. 87,04,689/- was levied as Fine in the year 2005-06 by TRAI on the Service Provider namely M/S Hexacom India Ltd., Jaipur for non compliance of TRAI directives regarding refund of amount to the cellular subscribers in accordance with Section 29 & 30 read with Section 34 of the TRAI (Amendment) Act, 2000. M/S Hexacom has deposited the said sum of Rs. 87,04,689/- that has been kept separately in Corporation Bank as an un-appropriated amount till an independent examination of Hexacom's data is undertaken by TRAI to confirm the correct figures based on which refund should be made. If the examination reveals that the amount refunded by Hexacom is correct then the aforesaid remittance may be refunded to them. Hence the above amount has been shown as current liability.



8. Grants

During the accounting year i.e. 2005-06 the grants sanctioned were Rs. 13 crore, However, grants received were 13.20 crores. The excess of 0.20 lakh have been credited to the Account maintained by DoT.

9. Pay and Allowances & Advances

A) Pay & Allowances

- i. Reimbursements of newspaper bills, tuition fees etc. have been accounted for under 'Other Benefits' (Code 13.2.3) for Authority Members and 'Welfare Expenses' for Officers (Code 14.3.4) and Staff (Code 15.3.4).
- ii. Reimbursement/Payment of employees' residence telephone bills has been accounted under the head 'Telephone Expenses' (Code 20.7).

B) Advances

- iii. TA advances (Code 33.1.2.3) and LTC Advances (33.1.2.4) & (33.1.3.4) shown under Schedule 'O' are reviewed and followed up for submission of bills and adjustments on a regular basis.

10. Fixed Assets

Fixed assets include:-

- a) Out of four vehicles purchased from DoT for Rs. 14,71,692/- during 1997-98, two cars were transferred to TDSAT in October, 2000. The cost of these two cars was Rs. 7,35,846/- and accumulated depreciation on date of transfer Rs. 2,48,211. The amount of WDV of such cars on the date of transfer Rs. 4,87,635/- has been debited to claims recoverable from TDSAT/DOT.
- b) Cost of fixtures amounting to Rs.1,22,22,170/- and WDV of Rs.86,35,632/- as on 31.3.2002 fitted at 16th and 20th floors of Jawahar Vyapar Bhawan (JVB), the previous office of TRAI was left there at the time of vacation. Since these fixtures specifically related to the specifications/requirements of that building and could not be dismantled and re-used in the new premises, they were left behind at JVB. The Authority was of the opinion



that TRAI should get these assets valued independently by an approved Valuer, so that a claim may be made with STC accordingly. No depreciation was charged during the current year on these assets.

The Govt. approved valuer has assessed the "value in use" of these assets at Rs. 2,35,622/- for fittings and fixtures left by TRAI on 20th floor and a sum of Rs. 34,139/- as "scrap value" in respect of 16th floor, thus totaling a sum of Rs. 2,69,761/-. The matter is still pending with STC. However, the fixtures amounting to Rs. 1,22,22,170/- and WDV Rs. 86,35,632/- have been separated from the total gross block as suggested by Audit.

11. Claims Recoverable (Code 46.1)

1. Rs. 4,87,635 is the amount recoverable from TDSAT/ DOT on account of two vehicles transferred to DOT.

12. Other Current Assets (Code 46.5)

This include as under:-

Rs. 9,239/-	-	Recoverable from CBDT
Rs. 2,21,803/-		Recoverable from other Deptts.,
Rs. 2,31,042/-		Total:

13. Claims against Authority.

In the month of June 2001, TRAI has vacated its office from Jawahar Vyapar Bhavan (owned by STC). During tenancy period, TRAI had some dispute with STC on the following grounds:-

- (i) 10% increase in Rent every year from period 01.06.1999 for 16th Floor and from 01.01.2000 for 20th Floor.
- (ii) 10% increase in Maintenance Charges beyond the period ending 31.05.1999 and 31.12.1999 for 16th and 20th floor respectively.

(iii) Payment of Property Tax.

- a) The amount of 10% increase in Rent and 10% increase in Maintenance Charges for the period mentioned in (i) and (ii) above as per the demand of STC is Rs. 2,24,81,997/- (without interest). This includes increase in charges for furniture. Since furniture was returned to STC in July 1999, no charges for furniture is to be paid as per our stand communicated to STC vide letter dated 23.5.2001.
- b) Likewise STC has also demanded Property Tax of Rs.1,92,17,892/-for the period from 01.06.97 to 30.06.2001.

TRAI has not accepted the above claims and its legal aspects are being examined. For each matter (i), (ii) and (iii) above, TRAI has expressed its opinion to STC through its letter No.6-1/1997-TRAI (GA) dated 23.05.01 to refer the dispute for Arbitration.

It may also be noted here that TRAI appointed a valuer namely M/S R.K. Consultant for the purpose of valuation of the left out furniture and fixture in STC Bldg. In his report he valued the scrap value of Rs. 34,139/- for fittings and fixtures left in the 16th floor and the "value in use" of Rs. 2,35,622/- for the items left in the 20th floor. TRAI has also insisted that STC first accept this valuation report and adjust the same in the payable amount vide D.O. No. 6-1/97-TRAI (GA) dated 11.04.2005.

The above-referred matter is a contingent liability.

14. Schedule A to T form part of Balance Sheet.

Sd/- PR. ADVISOR (FA&IFA)	Sd/- SECRETARY	(Vacant) MEMBER	Sd/- CHAIRPERSON
------------------------------	-------------------	--------------------	---------------------



TELECOM REGULATORY AUTHORITY OF INDIA
P L A N FUND
Receipt and Payment Account
for the year ending 31st March,2006

A/c Code	Receipts	Current Year as on 31/03/06	A/c Code	Payments	Current Year as on 31/03/06
	To Balance Brought down:		2	By Consultation	9957127.00
	To Bank	0.00	20.3	By Bank Charges	178.00
4555IN	To Grant	20000000.00	3	By Training	4507147.61
				By Bank	5535547.39
		20000000.00			20000000.00

Sd/-
Pr. Advisor (IFA & FA)

Sd/-
Secretary

(Vacant)
Member

Sd/-
Chairperson



TELECOM REGULATORY AUTHORITY OF INDIA
P L A N FUND
Income & Expenditure Account
for the year ending 31st March,2006

A / c Code	Expenditure	Current Year as on 31/03/06	A / c Code	Income	Current Year as on 31/03/06
2	Consultation	9957127.00	4555IN	Grant	30000000.00
3	Training	4447511.61			
20.3	Bank Charges	178.00			
	Excess of income over expr.	15595183.39			
	Total :	30000000.00			30000000.00

Sd/-
Pr. Advisor (IFA & FA)

Sd/-
Secretary

(Vacant)
Member

Sd/-
Chairperson



TELECOM REGULATORY AUTHORITY OF INDIA
P L A N FUND
Balance Sheet as on 31.03.2006

A/c Code	Liabilities	Current Year as on 31/03/06	A/c Code	Assets	Current Year as on 31/03/06
	Plan Fund				
	Excess of Income over Expenditure	15595183.39	3.1.1	Account with Govt.	10000000.00
			35.1	Recoverable from TRAI Fd.	59636.00
				Balance with Corporation Bank	5535547.39
	Total :	15595183.39			15595183.39

Sd/-
Pr. Advisor (IFA & FA)

Sd/-
Secretary

(Vacant)
Member

Sd/-
Chairperson



4.3 Audited Contributory Provident Fund Accounts of TRAI 2005-2006

AUDIT CERTIFICATE

I have audited the attached Balance Sheet of Telecom Regulatory Authority of India - Contributory Provident Fund Account as at 31 March 2006 and the Revenue Account/Receipts and Payments Account for the year ended on that date. Preparation of these financial statements is the responsibility of Telecom Regulatory Authority of India - Contributory Provident Fund Account's Management. My responsibility is to express an opinion on these financial statements based on my audit.

I have conducted my audit in accordance with applicable rules and the auditing standards generally accepted in India. These standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. I believe that my audit provides a reasonable basis for my opinion.

Based on our audit, I report that:

1. I have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of audit;
2. Subject to the observations given in the Separate Audit Report annexed herewith, I report that the Balance Sheet, the Revenue Account/Receipts and Payments Account dealt with by this report are properly drawn up and are in agreement with the books of accounts;
3. In my opinion and to the best of my information and according to the explanations given to me:



- (i) the accounts give the information required under the prescribed format of accounts;
- (ii) the said Balance Sheet, Revenue Account/Receipts and Payments Account and subject to the matters mentioned in the Separate Audit Report annexed herewith, give a true and fair view:
 - a. In so far as it relates to the Balance Sheet of the state of affairs of the Telecom Regulatory Authority of India - Contributory Provident Fund Account as at 31 March 2006; and
 - b. In so far as it relates to the Revenue Account of 'Excess of Expenditure over Income' for the year ended on that date.

Sd/-
(VIKRAM CHANDRA)
Director General of
Audit (P&T)

Place: Delhi

Date: 25 September 2006



Audit Report on the Annual Accounts of Telecom Regulatory Authority of India Contributory Provident Fund Account for the year 2005-06

1. INTRODUCTION

1.1 The Telecom Regulatory Authority of India - Contributory Provident Fund (TRAI-CPF) Account was established with effect from 5 May 2003 in pursuance of Rule 3 (1) of the Telecom Regulatory Authority of India (Contributory Provident Fund) Rules, 2003, issued under Government of India, Extraordinary Gazette Notification No. GSR 333(E) dated 10 April 2003. TRAI CPF constituted an irrevocable Trust for the benefit of the subscribers and mainly consisted of contributions/subscriptions made by TRAI and the subscribers, interests accrued thereon, securities purchased, etc. All sums paid to TRAI CPF under the above Rules were credited to an account, viz., "The Telecom Regulatory Authority of India Contributory Provident Fund Account" constituted in terms of Rule 3 (3) of the TRAI (CPF) Rules, 2003. The custody, control and management of TRAI CPF were vested in the Board duly constituted in terms of Rule 6 (1), *ibid*, and the maintenance of the accounts, convening meetings of the Board, keeping records of the meetings, etc, were being done by the Secretary of the Fund, as nominated by the Chairperson, TRAI.

1.2 In terms of Rule 5 (5), *ibid*, the TRAI CPF Account shall be audited by the authority auditing the accounts of the TRAI, i.e., the Comptroller and Auditor General of India. Accordingly, the audit of TRAI CPF Account for the year 2005-06 was conducted under Section 19 (2) the Comptroller and Auditor General's (Duties, Powers and Conditions of Service Act), 1971.

2. COMMENTS ON ACCOUNTS

-----NIL-----

Place: Delhi

Date: 25 September 2006

Sd/-
(VIKRAM CHANDRA)
Director General of
Audit (P&T)





**THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND
ACCOUNT RECEIPTS AND PAYMENTS ACCOUNTS FOR THE PERIOD ENDED 31ST MARCH 2006**

SI. No.	RECEIPTS	AMOUNT (CURRENT YEAR)	AMOUNT (PREVIOUS YEAR)	Sch.	SI. No.	PAYMENTS	AMOUNT (CURRENT YEAR)	AMOUNT (PREVIOUS YEAR)	Sch.
1	To Balance brought forward				11	By Investments	5509119.69	5566442.00	I (a)
1.1	Cash at Bank	222994.22	702533.61						
1.2	FDs								
2	To Contribution from Members	2801962.00	1801236.00	A	12	By Final Payment	440977.00		J
3	To Transfer of Balances	2133090.00	1464268.00	B	13	By Advances and Withdrawals	1578000.00	638018.00	K
4	To Contribution from TRAI	1054446.00	648989.00	C	14	By Misc. Payments	1607.50	28529.00	L
5	To Encashment of Mutual Funds	687494.14	112879.00	D					
6	To Interest Income	153174.77	110324.00	E					
	To Accrued Interest (2004-05)	56034.00	15059.61						
7	To Repayment of Advances	228290.00	35000.00	F					
8	To Maturity of FDs	1055308.00	1564694.00	G					
10	To Miscellaneous (Recovered from TRAI Gen. Fund)	42072.00	1000.00	H	20	By Closing Balance at Bank	905160.94	222994.2	
		8434865.13	6455983.22				8434865.13	6455983.22	

Sd/-

Sh. Mathew Palamattam
Dy. Advisor (Accounts)
Ex-Officio Trustee

Sd/-

Sh. A. K. Tewari
Jt. Advisor (A&P)
Ex-Officio Trustee

Sd/-

Sh. D. K. Gupta
Jt. Advisor (Legal)
Trustee

Sd/-

Smt. Meetu Gulat
Assistant (CN)
Trustee

Sd/-

Sh. Rajan Singla
Advisor (A & P)
Ex-Officio President

**THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND
ACCOUNT REVENUE ACCOUNT FOR THE PERIOD ENDED 31ST MARCH 2006**

FIGURES FOR THE PREVIOUS YEAR (Rs.)	EXPENDITURE	FIGURES FOR THE CURRENT YEAR (Rs.)	Schedule	FIGURES FOR THE PREVIOUS YEAR (Rs.)	INCOME	FIGURES FOR THE CURRENT YEAR (Rs.)	Schedule
418,136.00	To Interest	707,982.00	M	194,325.61	By Accrued Interest Rs.3,91,851 for 2005 - 06	391,851.00	N
				110,324.00	By Interest Income (Earned)	143,787.87	E
				113,486.39	By Excess of Expenditure over Income (Recoverable from TRAI General Fund)	172,343.13	
418,136.00		707,982.00		418,136.00		707,982.00	

Sd/-

Sh. Mathew Palamattam
Dy. Advisor (Accounts)
Ex-Officio Trustee

Sd/-

Sh. A. K. Tewari
Jt. Advisor (A&P)
Ex-Officio Trustee

Sd/-

Sh. D. K. Gupta
Jt. Advisor (Legal)
Trustee

Sd/-

Smt. Meetu Gulat
Assistant (CN)
Trustee

Sd/-

Sh. Rajan Singla
Advisor (A & P)
Ex-Officio President





**THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND
ACCOUNT BALANCE SHEET AS AT MARCH 31, 2006**

FIGURES FOR PREVIOUS YEAR (Rs.)	LIABILITIES	FIGURES FOR THE CURRENT YEAR (Rs.)	FIGURES FOR PREVIOUS YEAR (Rs.)	ASSETS	FIGURES FOR THE CURRENT YEAR (Rs.)
7484584.00	TRAI - CPF Members Account	12392559.00	7016442.00	INVESTMENTS	10770253.69
				CURRENT ASSETS, LOANS & ADV.	
			222994.22	Bank Balances	905160.94
			202066.61	Interest Accrued	518755.00
			2191.00	TDS	9378.96
			40890.17	Recoverable from TRAI General Fund	189010.41
7484584.00		12392559.00	7484584.00		12392559.00

Sd/-

Sh. Mathew Palamattam
Dy. Advisor (Accounts)
Ex-Officio Trustee

Sd/-

Sh. A. K. Tewari
Jt. Advisor (A&P)
Ex-Officio Trustee

Sd/-

Sh. D. K. Gupta
Jt. Advisor (Legal)
Trustee

Sd/-

Smt. Meetu Gulat
Assistant (CN)
Trustee

Sd/-

Sh. Rajan Singla
Advisor (A & P)
Ex-Officio President

