ANNUAL REPORT
2010-2011

Department of Telecommunications
Ministry of Communications &
Information Technology
Government of India
New Delhi

ANNUAL REPORT
2010-11

सत्यमेव जयते

DEPARTMENT OF TELECOMMUNICATIONS
MINISTRY OF COMMUNICATIONS & IT
GOVERNMENT OF INDIA
NEW DELHI

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I. Indian Telecom Sector: An Overview

Role of Telecom Sector in Development Process

Telecommunications has been recognized the world-over as an important tool for socio-economic development for a nation. It is one of the prime support services needed for rapid growth and modernization of various sectors of the economy. It has become especially important in recent years because of enormous growth of information technology and its significant potential for the impact on the rest of the economy. The Telecom Sector, which has the multiplier effect on the economy, has a vital role to play in economy by way of contributing to the increased efficiency. The available studies suggest that income of business entities and households increases by the use of telecom services. Thus it contributes to the growth in GDP. The Government of India recognizes that provision of world class telecommunications infrastructure and information is key to rapid economic and social development of the Country.

Present Status of the Sector

Telecommunications is one of the few sectors in India, which has witnessed the most fundamental structural and institutional reforms since 1991. In recent times, country has emerged as one of the fastest growing telecom markets in the world, particularly by the unprecedented growth in mobile telephony. This high growth rate has been achieved in major part due to sharp fall in tariffs. The rapid growth in Indian telecom services has prompted major global manufacturers of telecom equipment to consider investing in India, paving the way for extensive provision of modern communication services in rural areas and also provide a strong boost to government revenues. With the successfully concluded auctions of the 3G and BWA spectrum, this growth is set to become even more pronounced. Indian telecom network has 787.29 million connections as on 31st December 2010 with 752.20 million wireless connections, Indian telecom has become the second largest wireless network in the world after China. The future progress of telecom in our country is very encouraging. The addition of over 18 million connections per month puts the telecom sector on strong footing. The target of 600 million telephones by the end of 11th five year plan has been achieved in February, 2010. With such a pace of expansion the Department is certain to achieve the 11th plan targets. Present status of telecom sector is given in the following Box:

Box 1 : Present Status of the Telecom Sector

- Indian Telecom market is one of the fastest growing markets in the world.
- With its 787.29 million Telephone connection as on 31st December 2010, it is the second largest network in the world after China.
- It is second largest wireless network in the world.
- Over 18 million connections are being added every month.

- The target of 600 million telephones by the end of 11th five year plan has been achieved in February'10 itself.
- Wireless telephones are increasing at faster rate. The share of wireless telephones as on 31st December 2010 is 95.54% of the total phones.
- The share of private sector in total telephone is 84.60%.
- Overall tele-density has reached 66.17%. Urban tele-density is about 148%, whereas rural tele-density is at 31.22% which is also steadily increasing.
- Broadband connections increased to 10.74 million by November, 2010.

Growth of Telecom Sector

The opening of the sector has not only led to rapid growth but also helped a great deal towards maximization of consumer benefits as tariff have been falling across the board as a result of unrestricted competition. Telecom sector has witnessed a continuous rising trend in the total number of telephone subscribers. From a meager 22.8 million telephone subscribers in 1999, it has grown to 621.28 million at the end of March, 2010. The total number of telephones stands at 787.29 million as on 31st December 2010 showing addition of 166.01 million during the period from March to December 2010. Wireless telephone connections have contributed to this growth as the number of wireless connections rose from 35.61 million in 2004 to 584.32 million in March, 2010 and 752.20 million as on 31st December 2010. The wireline started to decline from 40.92 million in 2004 to 36.96 million in March, 2010 and 35.09 million in December, 2010, albeit it is stagnating now.

Table 1: Growth of Telephones over the years

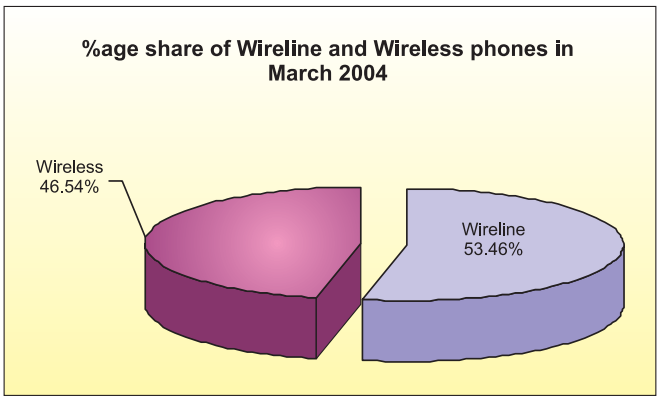
(In million)

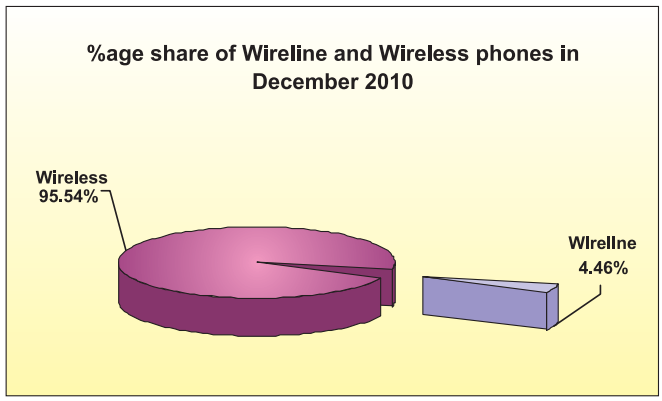
	March'04	March'05	March'06	March'07	March'08	March'09	March'10	December'10
Wireline	40.92	41.42	40.23	40.77	39.41	37.97	36.96	35.09
Wireless	35.61	56.95	101.86	165.09	261.08	391.76	584.32	752.20
Gross Total	76.53	98.37	142.09	205.87	300.49	429.73	621.28	787.29
Annual Growth %	40%	29%	44%	45%	46%	43%	45%	27%

Changes in structure of composition of Telecom Sector

Wireline vs. Wireless

The growth of wireless services has been substantial, with wireless subscribers growing at a compounded annual growth rate (CAGR) of 57.1% since 2004. Wireless have overtaken wirelines. The share of wireless phones has increased from 46.54% in 2004 to 95.54% in December, 2010.

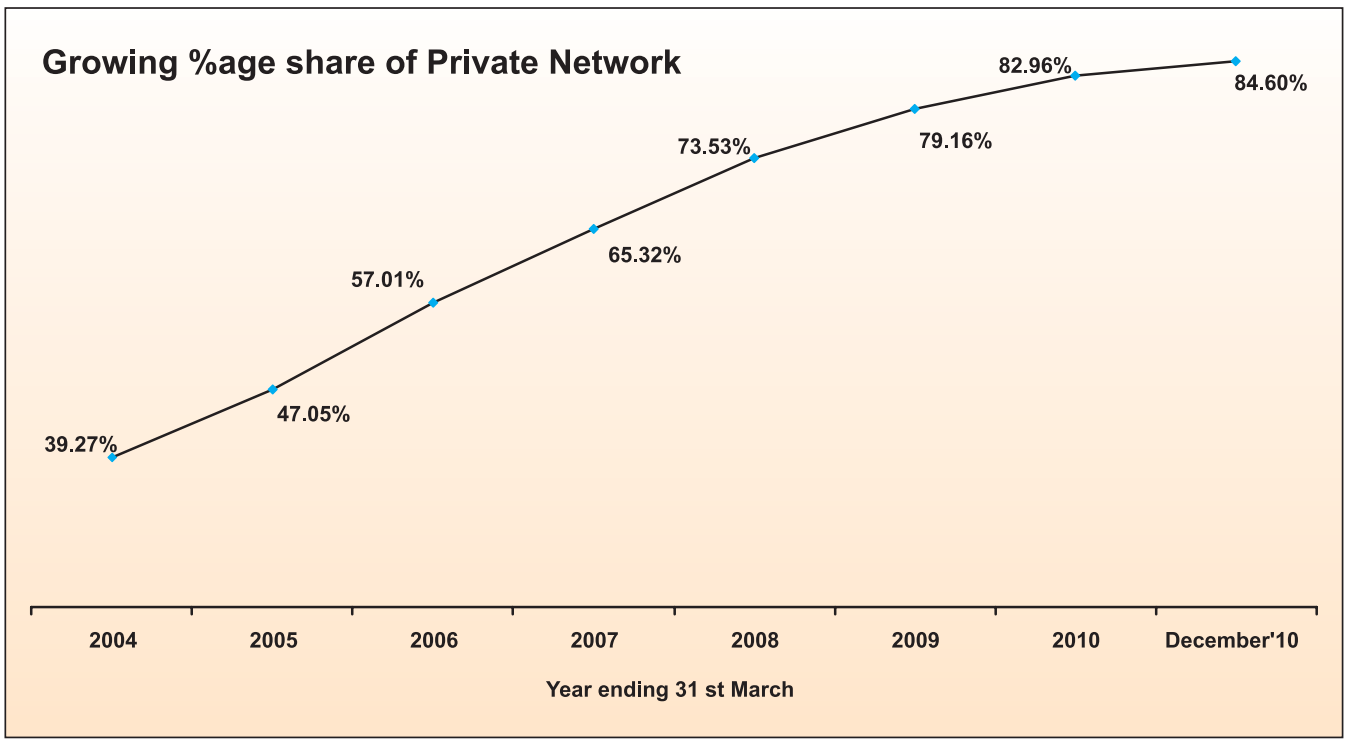




On the contrary, the share of fixed wireline has steadily declined. The year also witnessed two more telecom companies crossing the 100 million mark in terms of wireless connections. Bharti Airtel was the first Indian Operator to achieve the landmark in 2009. It was followed by Vodafone and Reliance Communication in 2010. Wireless phones have increased as they are preferred because of their convenience and affordability. As a result telephones today have come within the reach of a common man.

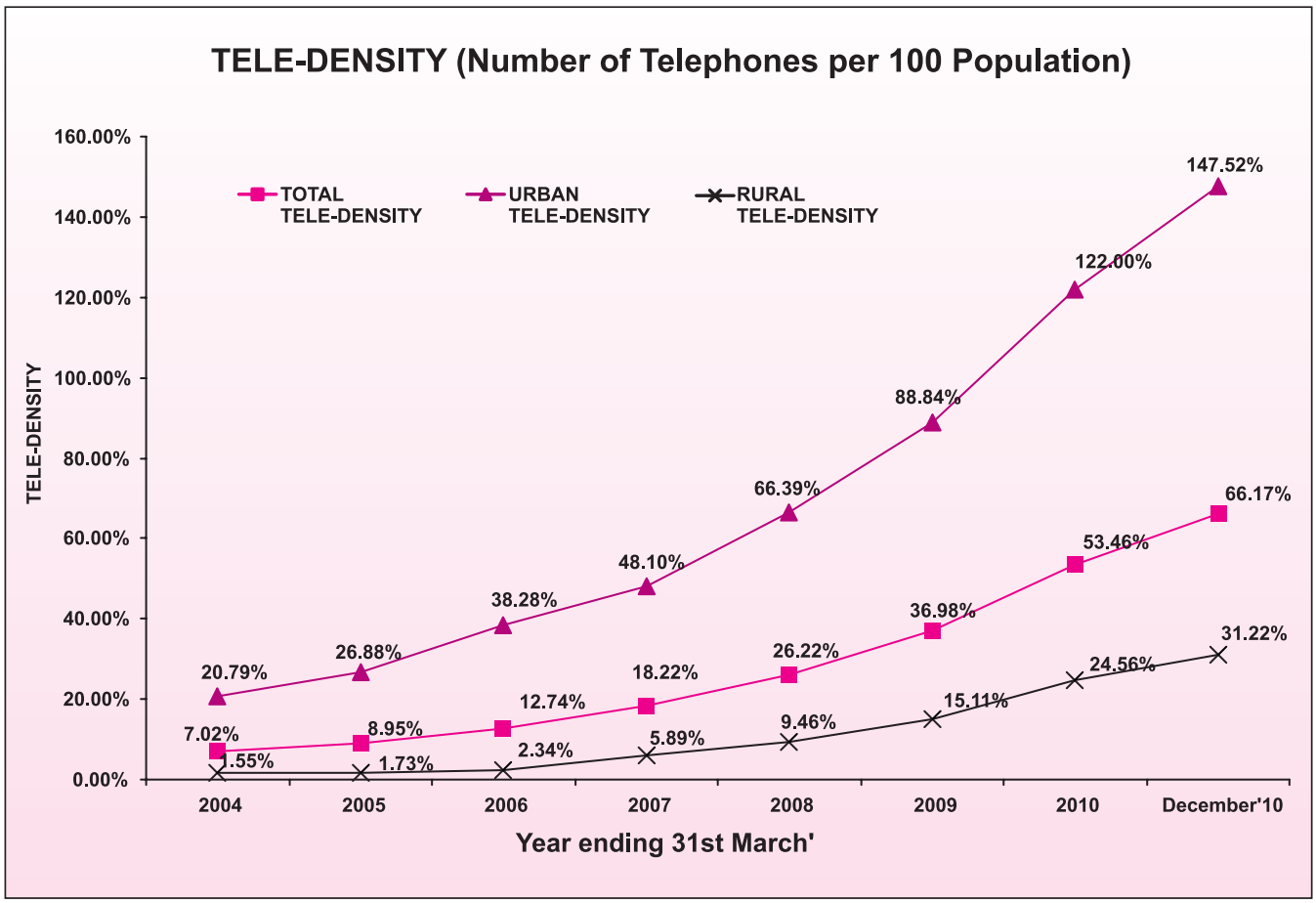
Private vs. Public

The fruits of the liberalization efforts of the Government are evident in the growing share of the private sector. The private sector is now playing an important role in the expansion of telecom services. The share of private sector in total telephone connections is now 84.60% as per the latest statistics available for December, 2010 as against a mere 5% in 1999.



Trend in Teledensity

Teledensity is an important indicator of telecom penetration in the country. There has been phenomenal spurt in the growth of teledensity in the country with the evolution of new wireless technologies.



- The Teledensity which was 7.02% in March 2004 increased to 53.46% in March, 2010 and 66.17% in December, 2010. Thus there has been continuous improvement in the overall teledensity of the country.
- The rural teledensity which was 1.55% in March 2004 has increased to 24.56% in March, 2010 and 31.22% at the end of December 2010.
- The urban teledensity has increased from 20.79% in March 2004 to 122% in March, 2010 and stands at 147.52% at the end of December, 2010.

For economic and social development of rural areas, rapid increase in rural teledensity is of utmost importance. With the introduction of wireless phones in rural areas, there is increasing trend in rural teledensity also. The Government is taking various measures under USOF for expansion of mobile network in remote rural areas. As the urban areas have got saturated, private service providers are also looking for further opportunities in rural areas. All these factors have led to increasing trend in rural teledensity.

Shifting Focus on Rural Telephones

With introduction of mobile services in rural areas, the rural subscribers are also increasing. The measures undertaken by USOF to increase rural connectivity are given in Box 2.

- The rural Telephone connections have gone up from 12.3 million in March 2004 to 200.77 million in March, 2010 and further to 259.83 million in December, 2010.
- Their share in the total telephones has constantly increased from 16.03% in 2004 to 33% as on 31st December 2010.
- The mobile connections have also contributed substantially to total rural telephone connections.
- During 2010-11, the growth rate of rural telephone is 29.41% as against the growth of 25.43% of urban telephones. The private sector has also contributed to the growth of rural telephones as it provided about 85% of rural telephones as on 31st December 2010.

Box 2 : USOF to increase Rural Connectivity

- As on 31st December 2010, about 5.70 lakh (96%) villages covered by VPTs.
- Under Bharat Nirman Programme, of the 62302 remaining villages, 61985 covered up to 31st December 2010.
- Infrastructure sharing scheme to set up 7363 towers spread over 500 districts of 27 states of the country implemented. About 7236 towers set up as on December 31, 2010.

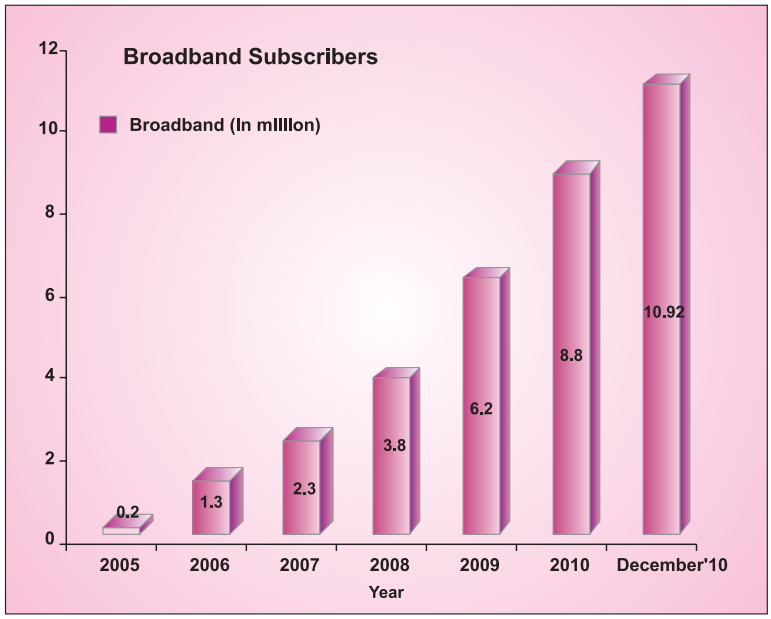
Potential for Further Growth

Indian telecom market has still a huge untapped potential to grow further. With a large population yet to have access to telecommunication and teledensity still being 66.17% and rural tele-density at 31.22%, there is significant growth opportunity for the sector, especially in rural areas and 3G and BWA yet to make significant inroads. The rural market is expected to drive the next round of growth for the voice-based services while data services will create the much needed churn with in maturing urban markets. The focus of the shareholder is now shifting to these untapped rural areas for voice based services and urban areas for the data based services which will provide engine for the second phase of the growth in Indian Telecom. Rural teledensity target has been upgraded to 40% by 2014. There is talk about one billion telephones in the country by 2015.

Broadband

It is necessary to increase the broadband connectivity for the knowledge-based society to grow quickly and for reaping the consequent economic benefits. The auction of 3G/BWA Spectrum has been successfully conducted. Newer Access technologies like BWA and 3G can significantly transform the character of internet/broadband scenario in India. Several policies have been announced and implemented to promote broadband in the country (Box 3).

- As a result of these measures, the broadband subscribers grew from 0.18 million in 2005 to 8.8 million as on 31st March 2010 and 10.92 million, at the end of the December, 2010.



- Broadband connectivity has been provided in 4044 cities, 5431 block headquarters, 613 district headquarters covering about 1,06,559 villages.
- Broadband coverage will get fillip with the setting up of 100,000 Common Service Centers (CSCs) covering all the villages in the country. As on November 2010, 86521 CSCs have been covered. They will provide internet access and benefit of e-governance to the common citizen.
- India faces technological as well as commercial challenges in penetration of broadband.
- The low PC penetration and affordability issue due to high cost are the main causes. In order to overcome affordability issue, the Government of India has unveiled a prototype tablet computer that would sell for an affordable INR 1500/-. The tablet would also come with a solar power option that could make it more feasible for rural areas.
- The wireless broadband is likely to be the preferred route that many operators adopt in delivering broadband services to the masses of the country. Wireless technologies have capabilities to provide widespread broadband access and could drive inclusive growth by way of mobile banking, tele education, E-governance, tele medicine etc.

Box 3 : USOF for boosting rural Broadband

- Scheme to provide 888832 wireline broadband connections to individual and Government institutions by 2014.
- As on 30th November 2010, 232852 broadband connections and 670 kiosks provided.
- Institutional users such as Gram Panchayats Higher Secondary School and Public Health Centres will be provided Broadband.
- Subsidy proposed for the wireless broadband active infrastructure such as BTS which would provide broadband coverage to about 5 lakh villages.
- Initiative taken to strengthen OFC network in rural areas to provide sufficient back-haul capacity to integrate voice and data traffic.

Growth Drivers

3G Telecom Services

The explosive growth of the telecom industry in India is being followed by the urge to move towards better technology and the next level of service delivery. While the last 5 years have been transformational for Indian telecom industry, the next few years look even more exciting. BWA will overcome the key hindrance of ROW in India, while 3G has the potential to make the mobile phone, a ubiquitous device for accessing the internet. The new opportunities opened through new services such as 3G mobile, VAS, Wi-MAX, M-Commerce, Mobile banking and Broadband wireless services will put emphasis on deeper penetration into urban and rural areas.

Mobile Number Portability (MNP)

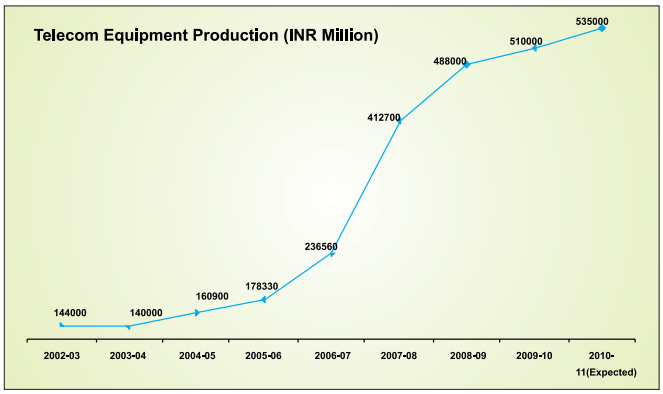
MNP allows any subscriber to change his service provider without changing his mobile phone number. The much-awaited mobile number portability was launched on 25th November 2010 at Haryana and on January 20, 2011 in entire country. With the rollout of MNP, mobile telecom service providers will be forced to improve quality of their service to avoid loss of subscribers.

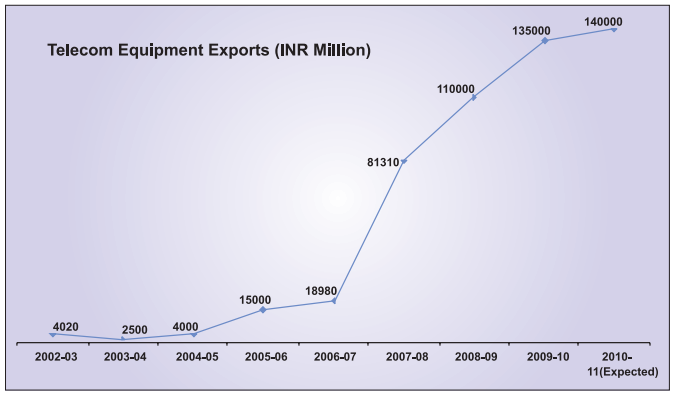
Value Added Services (VAS)

The mobile value added services include, text or SMS, menu based services, downloading of music or ring tones, mobile TV, video, streaming, sophisticated m-commerce applications etc. Prior to 2008, a majority of VAS revenues were attributable to SMS's. However, recent trends indicate that this mix is evolving. With greater penetration of new services, availability of relatively inexpensive feature rich handsets and consumer education, VAS other than SMS is gaining importance. It is further expected that 3G and BWA will raise hopes for an increase in demand of data and content based services. Such as cloud computing, remote surveillance, fleet management, telematics and retail supply chain. Mobile VAS such as mobile TV, mobile banking and mobile governance will witness a higher demand in future.

Manufacturing

Indian telecom industry manufactures a complete range of wireline telecom equipment using state-of-the-art technology. Considering the growth of wireless, there are excellent opportunities to domestic and foreign investors in manufacturing sector. Presently most of the wireless core equipments are being imported and there is great potential to manufacture these items in the country. The last five years saw





Hon'ble Prime Minister Dr. Manmohan Singh addressing
at the launch of Mobile Number Portability at New Delhi on January 20, 2011.

Hon'ble Prime Minister Dr. Manmohan Singh with Hon'ble MOC & IT Shri Kapil Sibal
at the launch of Mobile Number Portability at New Delhi on January 20, 2011.

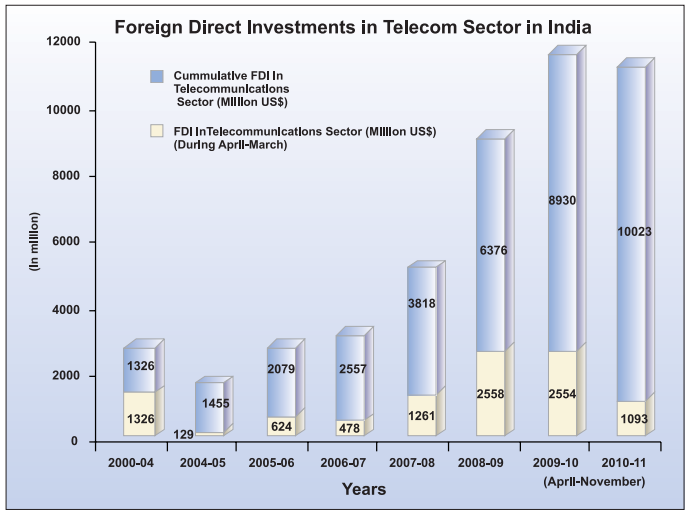
Hon'ble Minister of Communicaton & IT Shri Kapil Sibal inaugurating "India Telecom 2010" at New Delhi.

Hon'ble Minister of Communications and Information Technology, Shri Kapil Sibal holding a Round Table Meeting, in New Delhi on January 19, 2011. The Minister of State for Communications and Information Technology, Shri Sachin Pilot and the Secretary (Telecommunications), Shri R. Chandrashekhar are also seen.

many renowned telecom companies setting up their manufacturing base in India. The production of telecom equipments in value terms has increased from Rs.488000 million during 2008-09 to Rs.510000 million during 2009-10. The production of telecom equipment including Customer Premises Equipment (CPE) during 2010-11 is expected to be about Rs.535000 million. There are favourable factors such as policy moves taken by the government, incentive offered, large talent pool in R&D and low labour cost which can provide an impetus to the industry. Exports of telecom has also increased from Rs.110000 million in 2008-09 to Rs.135000 million during 2009-10 and it is expected to increase to Rs.140000 million in 2010-11.

Foreign Direct Investment

The liberalisation in financial sector has beneficial results as that in telecom sector. Liberalisation with allowing entry to the private firms has resulted in unprecedented growth in telecom sector. Today, telecom is the third major sector attracting FDI inflows after services and computer software sector. At present 74% to 100% FDI is permitted for various telecom services. This investment has helped telecom sector to grow. The total FDI equity inflows in telecom sector have been US$ 1093 million during 2010-11 (April-November).



REGULATORY FRAMEWORK

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. A number of regulations and Directions were issued by TRAI during 2010-11 which inter-alia included the Telecommunication Mobile Number Portability Regulation 2010, Spectrum Management and Licensing Framework, efficient Utilization of Numbering Resources. National Broadband Plan and Telecom Commercial Communications Customer Preference Regulations, 2010. These directions and regulation will help to develop the telecom sector.

In order to protect the interest of the consumers, TRAI has taken steps regarding audit of metering and billing system for bringing uniformity and transparency, prescribing standard relating to accuracy of measurement and reliability of billing etc. The service providers have to furnish the Audit report to TRAI every year, with corrective action taken on inadequacies by the service providers. Besides, TRAI has undertaken activities towards consumer education.

TRAI has also taken steps to ensure the quality of service provided by the service providers by way of monitoring the performance of Basic and Cellular Mobile Telephone Service on quarterly basis and also point of interconnection(POI) congestion through monthly reports.

The above measures are expected to facilitate orderly growth of telecom sector by promoting healthy competition and enhancing investment efficiency besides protecting interests of consumers.

RESEARCH & DEVELOPMENT

C-DOT, an autonomous society under DOT, is carrying out research & development for areas of national importance in Telecommunication. C-DOT is working on various developmental projects like Shared Global System of Mobile Communication Radio Access Network (SG-RAN) for rural India, upgradation of legacy switches to Next Generation services for North Eastern region, communication monitoring systems, secure dedicated communication networks, broadband service delivery platforms like Gigabit Passive Optical (GPON) systems. The projects like SG-RAN & GPON are expected to give an impetus to indigenous manufacturing.

The increased use of new technologies, the move towards corporatisation, competition and the separation of regulatory functions from operational services require advanced level of policy, regulatory, managerial and technological expertise. In order to develop and strengthen the capability to generate this expertise, the Telecom Centers of Excellence (TCOE) concept has been established in a Public-Private Partnership (PPP) mode with all stake holders onboard. Apart from application oriented research, the Centers are designed to assist and offer training to both high level decision makers of telecommunication entities to manage sector reforms and to corporate managers for management of networks and services. There will be eight TCOEs at the premier academic institutes of the country with the seven major telecom operators supporting one center each. The spectrum management center is being developed in an autonomous model with the support of an industry consortium. To provide a further boost to our manufacturing and R&D efforts, it has been further decided to set up a Telecom Testing and Security Certification Center (TETC) for communication security, research and monitoring. A large number of companies like Alcatel, Cisco etc. have also set up their research & development (R&D) centers in India.

TELECOM PSUs

MTNL and BSNL are the two premier PSUs under the Department that have thrived to meet the growing requirements of telephones and other related services. MTNL, which was set up mainly to expand the telecom network and to raise revenue for developing telecommunication facilities in India's key metros - Delhi and Mumbai, has taken rapid strides since its formation in 1986. MTNL has achieved a customer base of 8.87 million at the end of December, 2010. MTNL has allowed all its GSM mobile subscribers access to 3G services in order to make the 3G services popular among its subscribers. The company has 9.14 lakh broadband customers at the end of December, 2010. The Company has also been in the forefront of technology induction by converting 100% of its telephone exchange network into the state-of-the-art digital mode. The Government of India currently holds 56.25% stake in the company.

BSNL formed in October, 2000, is the World's 7th largest Telecommunications Company providing comprehensive range of telecom services in India: Wireline, CDMA wireless, GSM wireless, Internet, Broadband, Carrier service, MPLS-VPN, VSAT, VOIP services, IN Services etc. Within a short span of ten years, it has become one of the largest public sector service provider in the country serving 112.36 million subscribers including 86.71 million wireless customers (including CDMA and GSM) in December, 2010. Rural telephony is one of the focus areas of BSNL. It has provided Village Public Telephones (VPTs) in 5.70 lakh villages and has 396.30 lakh telephones in the rural areas at the end of December, 2010. BSNL has introduced broadband services from January 2005 and has provided 68.09 lakh broadband connections till December, 2010.

Major Policy Initiatives

Given the central aim of NTP 99 to ensure rapid expansion of tele-density and the objective "to transform in a time bound manner, the telecommunications sector to a greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players", the Department has taken various Policy Initiatives, as below which have helped the growth of the Telecom Sectors increased competition to benefit the customers to ensure affordable & quality service:

- The much awaited Mobile Number Portability was launched on 25th November 2010 at Haryana and on 20.01.2011 in entire country.
- With a view to regulate the unsolicited calls from the telemarketers; a regulation has been implemented whereby "National DO Not Call Registry (NDNC)" has been put into place.
- FDI Ceilings raised from 49% to 74%. 100% FDI is permitted in the area of telecom equipment manufacturing and provision of IT enabled services. This has made telecom one of major sectors attracting FDI inflows.

3G AND BWA SPECTRUM AUCTIONS

The Department of Telecommunications concluded the highly successful 3G and BWA spectrum auctions in June 2010. The Auctions were praised by all stakeholders as being efficient, fair and transparent, meeting the objectives of Government from the auction process. The overall auction proceeds at Rs.1,06,262 crore. In the 3G Auction the overall winning price was almost five times the reserve price and in the BWA Auction it was more than seven times the reserve price.

TRAI in its recommendations on "Allocation and Pricing of spectrum for 3G and Broadband Wireless Access" dated 27.9.2006, had recommended allocation of 3G spectrum in the 2.1 GHz band, and allocation of BWA spectrum in the 2.3 GHz band through e-auction.

DOT issued 'Guidelines for Auction of Spectrum for 3G and BWA Services' in August, 2008. Thereafter, an Information Memorandum (IM) containing information on the auction was released on 12.12.2008. The IM was subsequently revised to incorporate certain changes culminating in the issuance of a 'Notice Inviting Applications' for the Auctions 25.2.2010, wherein, amongst other details, the objectives of the auction were clearly laid down. These were:

- Obtain a market determined price of 3G/ BWA spectrum through a transparent process;
- Ensure efficient use of spectrum and avoid hoarding;
- Stimulate competition in the sector;
- Promote rollout of 3G and Broadband services;
- Maximise revenue proceeds from the Auctions;
- Resolve congestion issues related to second generation ("2G") mobile services.

Defining the objectives had a number of benefits:

- Objectives were used to develop auction rules - customization of auction rules was done in accordance with the objectives of the auction;

- Risk of litigation was minimized;
- The process was made more efficient and uncertainties reduced.

Auction Design

The auction design was developed following extensive consultation process among all relevant stakeholders. Inputs were sought from operators and likely bidders, experts, industry participants and general public at various stages. Two open-house sessions were conducted for stakeholders. Presentations on auction design were also made to Government agencies, including representatives from office of the C&AG, CVC, Planning Commission etc., to seek their views on the auction framework. The key features of the auction design were:

Electronic or e-auction: Bids were accepted only through a secure Electronic Auction System ("EAS"). Since auction was conducted over internet, bidders had option to bid from any location with a basic internet connection.

Price setting by auction system: Each auction was a simultaneous ascending e-auction comprising a series of bidding rounds ("Clock Rounds"). Price of a spectrum block kept increasing till demand-supply equilibrium reached. Bid prices were not set by bidders, but by the auction system, based on a pre-defined algorithm.

Common winning price: Winning price for any service area was the highest price at which all the blocks on offer in that service area could be sold.

Simultaneous auctions: Auction held simultaneously for each of the 22 service areas in the country i.e. clock rounds occurred simultaneously for all 22 service areas.

Minimal risk of unsold lots: Auction rules minimised risk of unsold lots by a system of designating provisional winning bidders in each service area after every round. Provisional winning bidders "locked" into a service area till they were outbid.

Security features: EAS was a fully secure system with multiple levels of security maintained at all times. Bidders were provided four sets of authentication certificates and passwords through different means to ensure security.

Confidentiality, with transparency: After every round, bidders were informed about aggregate demand-supply situation and price levels in each service area and their own bids. However, identities of other bidders and their positions not disclosed. This feature, while maintaining adequate transparency, helped in sustaining competitive tension and in reducing chances of collusion.

Auction Process

Notice Inviting Applications (NIA) was issued on 25th February, 2010

- A maximum of 4 blocks and minimum of 3 blocks in various telecom circles identified for auction.
- A controlled, simultaneous, ascending e-auction was conducted by M/s N. M. Rothschild & Sons (India) Pvt. Ltd., Mumbai on behalf of DOT.

- 3G auction has started on 9th April, 2010 and completed on 19.5.2010.
- Total 9 companies participated in 3G auction.
- 7 companies won the 3G auction in various telecom circles.
- Successful bidders including BSNL and MTNL remitted a total amount of Rs.67718.95 crore to the Department.
- Letter of Intent allotting 3G frequencies to the successful bidders has been issued on 11.6.2010.
- The winners of 3G auction shall be allowed to utilize the spectrum for commercial operations only from 1st September, 2010
- Auction of BWA spectrum started on 24.5.2010 and was completed on 11.6.2010.
- Total 11 companies participated in BWA auction.
- 2 blocks of 20 MHz in 2.3 GHz band was auctioned.
- 6 companies won the BWA auction in various telecom circles.
- Successful bidders in addition to BSNL and MTNL have paid the amount of Rs. 38543.31 crore to the Department.

3G services and broadband wireless access are expected to be the next growth wave in the telecom sector. It is estimated that 3G subscribers would cross the 200 million mark by 2015 and 300 million mark by 2019, representing 20% and 27% of the total wireless subscriber base, respectively.

Vision

The Indian Telecom sector has proved to be an international success story. The sector has witnessed a commendable growth over the past 2 years. With an overall subscriber base of 787.29 million and a teledensity of 66.17%, at the end of December, 2010 the sector continues to grow from strength to strength.

With the urban teledensity reaching approx 150%, the market has been showing signs of maturity. Rural India is the key target market likely to drive the next round of growth, particularly for voice based services. It is envisaged that rural teledensity of 40% would be reached by end of 2014. 3G and BWA are expected to reinvigorate the maturing urban markets and help in bringing balanced growth of economy. The aggressive growth observed by mobile services is yet to be replicated in case of broadband service, where the subscriber base currently stands at about 11 million. The successfully concluded auction of the BWA and 3G spectrum will enhance the wireless broadband penetration across the country and help connect the remotest locations across India. The government has a vision to provide telephone connection and broadband facilities on demand across the country and at an affordable price and it strives to achieve the same.

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II. Telecom Commission

ROLE AND FUNCTIONS

The Telecom Commission was set up by the Government of India vide Resolution dated April 11, 1989 with administrative and financial powers of the Government of India to deal with various aspects of Telecommunications. The Commission consists of a Chairman and four full time members, who are ex-officio Secretaries to the Government of India in the Department of Telecommunications, besides there are four part time members who are the Secretaries to the Government of India of the concerned Departments. The present composition of the Commission is as follows: -

Chairman	Shri R. Chandrashekhar	w.e.f. September 24, 2010
Member (Finance)	Dr. (Smt.) Vijayalakshmy K. Gupta	w.e.f. September 4, 2009
Member (Services)	Shri S. C. Misra	w.e.f. March 17, 2010
Member (Technology)	Shri Chandra Prakash	w.e.f. September 17, 2009

The part time members are Secretary (Information Technology), Secretary (Finance), Secretary (Planning Commission) and Secretary (Industrial Policy and Promotion).

The major functions of the Telecom Commission include policy formulation, review of performance, licensing, wireless spectrum management, administrative monitoring of PSUs, research and development, standardization/validation of equipment and International Relations.

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III. Department of Telecommunications

ROLE AND FUNCTIONS

The Department of Telecommunications (DOT) is responsible for policy formulation, performance review, monitoring, international cooperation, Research & Development and grant of licences to operators for providing basic and value added services in various cities and telecom circles as per approved policy of the Government. The Department also allocates frequency and manages radio communications in close coordination with the International bodies. It is also responsible for enforcing wireless regulatory measures and monitoring the wireless transmission of all users in the country. The office of Administrator, Universal Service Obligation (USO) Fund has been set up w.e.f. June 1, 2002 for the purpose of implementation of Universal Service Support Policy. After formation of Bharat Sanchar Nigam Ltd (BSNL) in October 2000, following are the functions assigned to the DOT under Government of India (Allocation of Business), Rules, 1961:-

- Policy formulation, licensing and coordination matters relating to telegraphs, telephones, wireless, data, facsimile and Telematics services and other similar forms of communications.
- International cooperation in matters connected with telecommunications, including matters relating to all concerned international bodies such as International Telecommunication Union (ITU), its Radio Regulation Board (RRB), Radio Communication Sector (ITU-R), Telecommunication Standardization Sector (ITU-T), Development Sector (ITU-D), International Telecommunication Satellite Organization (INTELSAT), International Mobile Satellite Organization (INMARSAT), Asia Pacific Telecommunication (APT).
- Promotion of standardization, research and development in telecommunications.
- Promotion of private investment in Telecommunications.
- Financial assistance for the furtherance of research and study in telecommunications technology and for building up adequately trained manpower for telecom programme, including:-
  - (a) assistance to institutions/scientific institutions and to universities for advanced scientific study and research; and
  - (b) grant of scholarships to students in educational institutions and other forms of financial aid to individuals including those going abroad for studies in the field of telecommunications.
- Procurement of stores and equipment required by the Department of Telecommunications.
- Telecom Commission.
- Telecom Regulatory Authority of India.
- Telecom Disputes Settlement and Appellate Tribunal.

- Administration of laws with respect to any of the matters specified in this list, namely:

  (a) The Indian Telegraph Act, 1885 (13 of 1885);

  (b) The Indian Wireless Telegraphy Act, 1933 (17 of 1933); and

  (c) The Telecom Regulatory Authority of India Act, 1997 (24 of 1997).

- ITI Limited.
- Post disinvestment matters relating to Hindustan Teleprinters Limited.
- Bharat Sanchar Nigam Limited.
- Mahanagar Telephone Nigam Limited.
- Telecommunications Consultants (India) Limited.
- All matters relating to Centre for Development of Telematics (C-DOT).
- Residual work relating to the erstwhile Department of Telecom Services and Department of Telecom Operations, including matters relating to the following:-

  (a) Cadre controlling functions of Group 'A' and other categories of personnel till their absorption in Bharat Sanchar Nigam Limited.

  (b) Administration and payment of terminal benefits.

- Execution of works, purchase and acquisition of land debitable to the Capital Budget pertaining to telecommunications.

GRANT OF LICENSES

UNIFIED ACCESS SERVICES

- There were 240 Unified Access Service (UAS), 2 Basic Service and 37 Cellular Mobile service (CMTS) Licenses as on December 31, 2010.
- Permission for usage of dual technology spectrum (both CDMA and GSM) under the same CMTS/ UAS Licence has been granted to 8 companies as on December 31, 2010.

Mobile Number Portability (MNP)

Department of Telecom has launched MNP Service in Haryana on 25th November 2010 and in entire contry on 20th January, 2010. Mobile Number Portability (MNP) in India will allow subscribers to retain their existing telephone number when they switch from one service provider to another or from one technology to another of the same service provider. For the purpose of grant of Licences for MNP service in India, the whole country is divided into 2 MNP zones consisting of 11 service areas each and one licence for MNP service in each MNP zone has been awarded in April 2009 based on tendering process.

CARRIER SERVICES

National Long Distance Service

National Long Distance (NLD) Service was opened to the private sector w.e.f. 13 August, 2000. Indian registered companies having a net worth of Rs 2.5 Crore and paid up equity of Rs. 2.5 crore are eligible to apply. The total foreign equity in the applicant company must not exceed 74 percent at any time during the entire licence period. Investment in the equity of the applicant company by an NRI/OCB/ International funding agencies is counted towards its foreign equity. The entry fee of Rs. 2.5 Crore is to be submitted before signing the licence agreement. There is no restriction on number of operators. An NLD operator can carry inter-circle traffic in the country. The licence for NLDO is issued on non-exclusive basis, for a period of 20 years and is extendable by 10 years at one time. In addition to Bharat Sanchar Nigam Ltd. (BSNL), 29 more companies have signed licence agreement for National Long Distance Service. The competition resulted in lowering of tariff.

International Long Distance Service

The International Long Distance (ILD) Service is basically a network carriage service, providing International connectivity to the network operated by foreign carriers. In accordance with the New Telecom Policy-1999, the Government opened the International Long Distance Service from 1st April 2002 to the private operators. There is no restriction on the number of operators. The Indian registered companies having a net worth of Rs. 2.5 Crore are eligible to apply. The total foreign equity in the applicant company must not exceed 74 percent at any time during the entire licence period. Investment in the equity of the applicant company by an NRI/OCB/International funding agencies is counted towards its foreign equity. The entry fee of Rs. 2.5 Crore is to be submitted before signing the licence agreement along with Performance Bank Guarantee of Rs. 2.5 crore. The licence is valid for 20 years from the date of licence agreement. So far 25 companies have signed licence agreement for International Long Distance Service.

Infrastructure Provider Category-I (IP-I)

The applicant company for IP-I requires registration only with DOT. Companies registered as IP-I can provide assets such as dark fibre, right of way, dust space and tower. All Indian Registered companies are eligible to apply. There is no restriction on foreign equity and number of entrants. There is no entry fee and bank guarantee. The applicant company is required to pay Rs. 5,000 as processing fee along with the application. So far 351 companies have been registered as Infrastructure provider Category-I.

Voice Mail / Audiotex / Unified Messaging Service

- New Policy for Voice Mail/Audiotex Service in terms of NTP-99 was announced in July 2001 by incorporating a new service, namely, Unified Messaging Service (UMS). UMS is a system by which voice mail, fax and e-mails (all the three) can be received by one mailbox using telephone instrument, fax machine, mobile phone, Internet browser etc.
- There are 25 licences in 08 cities owned by 16 companies as on December 31, 2010 for providing Voice Mail/Audiotex/Unified Messaging Service.
- There is no licence fee for providing Voice Mail/Audiotex Service.

Public Mobile Radio Trunk Service Licence

- Policy for Public Mobile Radio Trunk Service (PMRTS) in terms of NTP-99 was announced on November 1, 2001. The new PMRTS licenses shall be granted on non-exclusive "first come first service" basis.

- Presently, there are 42 licences owned by 8 companies to provide PMR service in 3 metros and 10 circles.

GMPCS Service Licence

- Policy for grant of licence for Global Mobile Personal Communication by Satellite Service (GMPCS) in terms of NTP-99 was announced on November 2, 2001. As on date, there is no licence for providing GMPCS service in India. One LoI has been issued for GMPCS license to M/s Noida Software Technology Park Limited.

- The licence fee, which is in the form of revenue share, is 10 percent of the adjusted gross revenue and entry fee is Rs. 1 crore.

Other Service Providers (OSPs) & Telemarketers

- Registration of call Centres (International and domestic), Network Operation Centres and Vehicle Tracking Systems is being done under OSP category. Over 2500 cases have been registered under OSP category at DOT HQ.

- Registration of call Centres under OSP Category and of Telemarketers under Telemarketing Category was earlier decentralized from DOT HQ to TERM Cells in 10 circles w.e.f September 1, 2007. Further, w.e.f June I, 2008 the work has been decentralized to all TERM Cells. However, the CS Cell of DOT shall continue to handle the policy issues of OSP & Telemarketers.

- The OSP Registration Policy has been revised from August 5, 2008 and as per new policy, the work from Home concept has been permitted for call center OSP's.

Very Small Aperture Terminal Service (VSAT) Service

- There are 13 Licencees for Commercial CUG VSAT service as on December 2010. Over One lakh commercial CUG VSATs are operational as on December, 2010.

INTERNET AND BROADBAND SERVICES

- As on December 31, 2010 there were 376 Licencees for Internet Services which includes 101 Category A Licencees, 139 Category B Licencees and 136 Category C Licencees. Two Internet Service Licencees has been permitted to provide IPTV Services. Further, there were 17.96 million internet subscribers as on quarter ending September 30, 2010 and about 10.92 million broadband subscribers as on December 31, 2010.

INVESTMENT POLICY (IP)

Telecom Sector is considered to be one of the most attractive sectors for foreign direct investment. Present FDI Policy for the Telecom sector is as under:

For Basic and cellular, Unified Access Services, National/ International Long Distance, V-Sat, Public Mobile Radio Trunked Services (PMRTS), Global Mobile Personal Communications Services (GMPCS) and other value added telecom services;

Foreign Direct Investment (FDI) upto 74% (including FDI, FII, NRI, FCCBs, ADRs, GDRs, convertible preference shares, and proportionate foreign equity in Indian promoters/ Investing Company) is permitted. FDI upto 49% is permitted under automatic route and beyond 49% by FIPB as per the conditions of Press Note 3 (2007 series) read with Press Note No. 2/2009.

ISP (with gateways), end to end bandwidth and Radio Paging Service;

FDI upto 74% is permitted subject to licensing and security requirements.
FDI upto 49% is permitted under automatic route and beyond 49% by FIPB.

ISP without gateway, Infrastructure Providers providing dark fibre, right of way, duct space, tower(Category-I), Electronic Mail and Voice Mail;

FDI upto 100% is allowed subject to the conditions that such companies would divest 26% of their equity in favour of Indian public in 5 years, if these companies are listed in other parts of the world. Also, subject to the licensing and security requirements, where required. FDI upto 49% is permitted under automatic route and beyond 49% by FIPB.

Manufacture of Telecom Equipments

FDI upto 100% is allowed through automatic entry route.

Actual Inflow of FDI in Telecom Sector from April 2000 to November 2010 is Rs. 45,668 crore. Financial year wise break up of FDI since April 2000 is as under:

(Rs in crore)

YEAR (April-March)	FDI INFLOW	YEAR	FDI INFLOW
2000-01	784	2006-07	2,155
2001-02	3,938		
2002-03	908	2007-08	5,103
2003-04	409	2008-09	11,727
2004-05	570	2009-10	12,338
2005-06	2,774	2010-11 (April-November 2010)	4,962
		GRAND TOTAL	**45,668**

MANUFACTURING OF TELECOM EQUIPMENT

India has fast emerged as a manufacturing hub as multinational companies look for long term alternatives. As a result of Government policy, progress has been achieved in the manufacturing of telecom equipment in the country. There is a significant telecom equipment-manufacturing base in the country and there has been steady growth of the manufacturing sector during the past few years. In the last 5 years, the country's contribution in mobile devices has increased from 0% to 6% of the global device production.

Rising demand for a wide range of telecom equipment, particularly in the area of mobile telecommunication, has provided excellent opportunities to domestic and foreign investors in the manufacturing sector. The last two years saw many renowned telecom companies setting up their manufacturing base in India. Nokia and Nokia Siemens Networks have set up their manufacturing plant in Chennai. Ericsson has set up GSM radio Base Station Manufacturing facility in Jaipur. Motorola, Foxconn (OEM) has set up large manufacturing plants in Chennai. Elcoteq has set up handset manufacturing facilities in Bangalore. LG Electronics has set up plant of manufacturing GSM mobile phones near Pune. Ericsson has launched their R&D Centre in Chennai. Flextronics has set up an SEZ in Chennai. A large number of companies like Alcatel, Cisco have shown interest in setting up their R&D centers in India.

With upcoming broadband revolution, the demand for wireline products, transmission equipment, wireless equipment, fibre and devices will multiply, providing large scale opportunities for Indian and multinational companies. The rapid development of semiconductor ecosystem and the electronic ecosystem in India is connected with the growth of telecom sector in India, as both domestic and foreign companies are expanding their operations across the whole value chain in the country.

Production of Telecom Equipments including export and import during 2008-09 & 2009-10 are as under:

During 2009-10 Telecom Equipment Production: Rs. 510,000 million. India's Export of telecom items: Rs. 135,000 million. India's Import of Telecom items: Rs. 450,250 million. India's export of Telecom Consultancy: Rs 72.70 million.
During 2010-11 Telecom Equipment Production: Rs 535,000 million (projected) India's Export of Telecom items: Rs. 140,000 million. (Projected) India's export of Telecom Consultancy: Rs 12.70 million (upto September 2010).

India Telecom 2010

The Department of Telecommunications with Federation of Indian Chambers of Commerce and Industry (FICCI) organized the 5th exhibition and conference "India Telecom 2010" in December 2010 at New Delhi with the objective of promoting and showcasing the capabilities & opportunities in Indian Telecom Sector. The theme for this year's event was "Broadband for all". The conference brought the Government,

Shri R. Chandrasekhar, Secretary DOT, inaugurating "India Telecom 2010" exhibition at New Delhi

policy makers, potential investors, operators, manufacturers, infrastructure providers, content providers, academia and non-governmental organization together at a common platform to discuss how telecommunications can lead to an "all-inclusive growth" of the Indian economy in terms of GDP, growth, employment and revenues, among others. Hon'ble Minister of Communications & Information Technology graced the occasion by addressing the participants during the inaugural ceremony on 9th December, 2010. The exhibition received a huge response with 273 exhibitors from across 40 countries and 5 country pavilions.

INTERNATIONAL COOPERATION

In the field of international cooperation, workshops, seminars and training programmes are held within the country and outside. Deliberations were held with the visiting foreign dignitaries, apart from the visits. Some of these are listed below:

Activities for the period 2010-11 (April - December)

ITU Plenipotentiary Conference 2010

India participated in the ITU Plenipotentiary Conference which was held in Guadalajara, Mexico in the month of October, 2010. The Indian delegation was led by Hon'ble MOSC&IT Shri Sachin Pilot. During the

PP-10, elections were held for the Council membership of ITU and Radio Regulation Board Members besides its elected office bearers such as Secretary General, Deputy Secretary General and Directors of the Bureau.

India got elected as a Member of ITU Council and India's nominee also got elected as Member of the Radio Regulation Board of ITU. On this occasion, extra-ordinary session of 2010 ITU Council was also held at Guadalajara on 2nd October, 2010 and the same was chaired by India.

World Telecom Development Conference 2010

India, for the first time, hosted one of the very high profile and important ITU event - World Telecom Development Conference at HICC, Hyderabad during May 24th to 4th June, 2010. The Conference set the road map for the development of the global ICT sector. WTDC-10 was inaugurated by Hon'ble MOC&IT.

Shri P. J. Thomas, the then Secretary Telecom, Chairman of ITU WTDC-10 conducting the conference at HICC Hyderabad, India

The Conference was chaired by Secretary Telecom Commission. Over 1300 delegates which inter-alia included 67 Ministers and Vice Ministers from around 139 member countries from across the world attended the conference. Beside the Hyderabad declaration and Hyderabad Action Plan, the Conference adopted 16 new resolutions and modified 47 resolutions.

2010 Session of the ITU Council

2010 session of ITU Council was held in Geneva. The session was special for ITU as it was the last council meeting before ITU Plenipotentiary Conference 2010. India was elected unanimously the Chairman of 2010 session of ITU Council.

ITU Kaleidoscope events 2010

Kaleidoscope 2010 was held at Sinhgad Technical Education Society Campus Pune, during December, 2010. The event was inaugurated by Advisor (Technology), DOT. Vice Chancellor of Pune University, Professor of Aalborg University and a number of dignitaries including ITU, Director TSB were present during the event. The theme of the event was "Beyond the Internet? - Innovations for future networks and services".

Bilateral Co-operations / Joint Commission Meetings that were represented by the officers of DOT :-

- Bilateral cooperation meeting with Bhutan was attended by Secretary (T) & Secretary, RGOB and other senior officers of DOT on 31-05-2010.
- A meeting was held with visiting US delegation on 17th August, 2010 headed by Secretary (T) from Indian side.
- US Delegation's meeting with Secretary (T) at New Delhi on 20-10-2010.
- Canadian High Commissioner meeting with Secretary (T) at New Delhi on 27-10-2010.
- Secretary (T) meeting with UNDP Assistant General & UNDP Assistant Director, Administrator Director on 09-11-2010.
- A Bilateral Meeting with Secretary (T) for their visiting Ambassador, US Co-ordinator for International Communications and Information Policy was held on December 8, 2010 at New Delhi
- A Bilateral meeting with Hon'ble Minister of Communications & IT, for their visiting Hon'ble Finnish (Finland) Minister of Communications was held on 8-12-2010 at New Delhi.

Foreign Deputation

- Deputation of Indian delegation led by Hon'ble MOS(C&IT), Government of India to visit Chamber of Commerce Hongkong to speak & discuss about investment potentials in India during 09-10th April, 2010.
- Deputation of DOT officers led by, Hon'ble Minister of Communications & IT, Government of India for a bilateral meeting with the Secretary Geneva of International Telecommunication Union at Geneva, Switzerland during 10-18th June, 2010.
- Deputation of India delegation led by Chairman (TC), DOT alongwith the senior officers of DOT for participating in Communic Asia 2010, to be held at Singapore from 15-18th June, 2010.
- Deputation of India delegation led by Member(S) and Ex-officio Secretary, DOT alongwith the senior officers of DOT for participating in 34th Meeting of Assembly of Parties of International

Telecommunications Satellite Organization (ITSO) to be held at Washington DC, USA from 22-24th June, 2010.

- Deputation of Indian delegation led by Member(T) & Ex-officio Secretary, DOT for participating in Commonwealth ITU Group meeting and CTO Forum on Broadband connectivity for all at Colombo, Srilanka from 09-15th September, 2010.
- Deputation of Hon'ble Minister of State(C&IT) Government of India participated in the ITU Council meeting and ITU Plenipotentiary Conference at Guadalajara, Mexico from 4-5th October, 2010.
- Deputation of Indian delegation led by Member(S) & Ex-officio Secretary, DOT with the senior officers of DOT for participating in the 13th meeting of the international Telecommunications satellite organization (ITSO) Advisory committee to be held at Washington DC, USA from 16-17th November, 2010.
- Deputation of Indian delegation led by Hon'ble Minister of State (C& IT), Government of India to Addis Ababa, Ethiopia from 13-16th December, 2010 excluding journey time.

OFFICIAL LANGUAGE (HINDI)

ACTIVITIES

During the period 2010-11 (April -December), the following items of important work relating to progressive use of Hindi were undertaken by the Official Languages Division of DOT:

Implementation of Official Language Policy and the Annual Programme of the Government of India

All Sections, Attached and Subordinate Offices and Public Sector Undertakings under the administrative control of DOT were advised to comply with the provision of the Official Language Act, Rules and instructions issued thereunder for achieving the targets fixed by the Official Language Department in there Annual Programme for the year 2010-11. Quarterly Progress Reports regarding progressive use of Hindi in the Department, its attached and subordinate Offices and PSUs under the administrative control of DOT were reviewed and necessary instructions were issued for taking corrective measures. The Section 3(3) of the Official Language Act, 1963 was fully complied with during the period under review.

Monitoring and Inspection

During the period eleven (11) inspections were conducted by the Second Sub Committee of Parliament on Official Language in all the offices/units and PSUs of the DOT spread through out India. The Official Language Division worked as a coordinator during the course of all such inspections. Official Language Division also conducted eight (8) such inspections independently to ensure the compliance of the provisions of the Official Language instructions issued thereunder.

Official Language Conference

One officer from Official Language division of DOT participated in the "Antarrastria Hindi Samelan" conducted by Bhartiya Sanskriti Sansthan in Japan from 12th to 16th May, 2010.

Official Language Implementation Committee

Quarterly meetings of Official Language Implementation Committee of the Department were held at regular intervals wherein the progress relating to the use of Hindi in official work in the Department was reviewed. During the year, four such meetings were held.

Training & Workshop

Some officials who did not have working knowledge of Hindi/Computer/Hindi Stenography/Hindi Typewritting were trained and some were nominated for similar training for the session commencing from February, 2011. A Hindi Workshop regarding use of software for facilitating use of Hindi on Computers was organised.

Celebration of Hindi Pakhwara

Hindi Pakhwara was organized from September 14, 2010 to September 30, 2010 in the Department. 14 competitions relating to the promotion of Official Language in the Department were organized. Separate competitions in Noting/drafting and Essay writing were organised for the Non-Hindi speaking officers/officials.

Hindi Salahakar Samiti

Hindi Salahakar Samiti of DOT has been reconstituted vide resolution dated October 21, 2010.

STAFF WELFARE AND SPORTS ACTIVITIES

Under the Welfare Programmes, scholarships, book-awards and incentives are granted to meritorious school/college going children of the DOT employees. Besides this, conveyance allowance/hostel subsidy is also granted to mentally/physically challenged children of the employees. The programme also includes financial assistance to employees in distress and provides subsidies for recreation tours etc. During year 2010-11, the following activities were undertaken under the Welfare programme:

- Financial Assistance of Rs. 40,000/- (Rupees forty thousand only) was provided to the families of deceased employees.
- Officials of DOT (HQ) were deputed to participate in different sports events conducted by Northern Telecom Region (NTR)/Bharat Sanchar Nigam Limited and Inter Ministry Tournaments.
- Book Awards and Incentives were distributed to the meritorious school going children of DOT employee.
- All other activities of the previous year were also duly performed.

Gender Budgeting and Provisions for SC & ST

The welfare schemes are largely gender neutral and composite in nature. However, some of the schemes namely Book Award, Scholarship Award contains pro women & SC/ST orientation by way of relaxation in marks for these categories. There is no earmarked amount for these categories as Book Awards/

scholarships are awarded to the deserving applicants fulfilling the eligibility criteria. The expenditure incurred out of Staff Welfare Fund in respect of women & SC/ST is as under:

- Expenditure incurred on Women Welfare: Rs.5,90,000/-.
- Expenditure incurred on Development of SC/ST: Rs. 3,13,100/-

GENDER BUDGETING

In the Department of Telecommunications the Gender Budget Cell was constituted in November 2006. The Cell was further reconstituted in April 2010. The Gender Budgeting Cell of the Department is trying to generate awareness about the gender budgeting initiative of the Government and the manner in which the Department of telecom can play a role in mainstreaming gender concern at the planning and formulating stage of various schemes in the sector.

Allotment of funds under non plan head for the benefit of women for 2009-10 and 2010-11 are given below:

(Rs. in crore)

100% Women specific programmes			
Details of the scheme	BE 2009-10	RE 2009-10	BE 2010-11
Amenities to staff	0.00	0.00	0.30
30% women Specific programmes			
Details of the scheme	BE 2009-10	RE 2009-10	BE 2010-11
Amenities to staff	0.10	0.10	0.10

RIGHT TO INFORMATION ACT

A separate RTI Unit has been established in this Department and is functional since January 1, 2007.

RTI Unit of Department of Telecommunications is continuously in the process of strengthening the system of disposal of RTI applications to the satisfaction of the public. An RTI Unit with Director (Coord.) as CPIO, Under Secretary as APIO and RTI Section headed by a Section Officer is functioning as the Nodal Unit for the Department, its PSUs and autonomous bodies and other Departments/Ministries. In addition to the above, 69 CPIOs with additional First Appellate Authorities are functioning in DOT to facilitate quick disposal of RTI applications/appeals. In conjunction with IT Unit of this Department, the incumbency position of CPIOs and First Appellate Authorities are uploaded on the website of the Department of Telecom.

During the year 2010-11, upto December 31, 1432 applications were received out of which 426 applications were transferred to other departmental Public Authorities and PSUs. Disposal of applications with information was approximately 99%. There was no denial of information except as per the provisions of the RTI Act.

PUBLIC GRIEVANCES AND REDRESSAL

Department of Telecom receives complaints directly in its Public Grievances Cell from the office of the Hon'ble Prime Minister, Minister of Communications and IT, MPs, MLAs, VIPs, Chairman's Office, Department of Administrative Reforms and Public Grievances (DARP&G) and from the public. Public Grievances Cell of DOT monitors complaints for their early and timely settlements.

Opening Balance as on April 30, 2011	Grievances booked during the period	Total	Grievances closed during the period	Balance as on December 31, 2011
3509	54,746	58,255	55,425	2830

IMPLEMENTATION OF RESERVATIONS ORDERS FOR SCHEDULED CASTES / SCHEDULED TRIBES AND OBCS EMPLOYEES

In accordance with the policy of the Government of India, a SCT cell is functioning in the Department of Telecommunications under the supervision of Director (Staff Relations) who has been appointed as Liaison Officer for SC/STs for the Department of Telecommunications. The Liaison Officer provides relevant guidelines not only to the officers in the Department but also to all Public Sector Undertakings, Autonomous Bodies, Statutory Bodies, Attached and Subordinate Offices under the Department of Telecommunications.

IMPLEMENTATION OF JUDGEMENTS/ORDERS OF CENTRAL ADMINISTRATIVE TRIBUNAL (CAT)

During the period 2010-11, 19 judgements/orders of Central Administrative Tribunal were implemented by the Department of Telecommunications.

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III. 1 Wireless Planning and Coordination

INTRODUCTION

The Wireless Planning and Coordination Wing in the Department of Telecommunications, deals with the policy of spectrum management, wireless licensing, frequency assignments, international coordination for spectrum management and administration of Indian Telegraph Act 1885, (ITA, 1885), for radiocommunication systems and Indian Wireless Telegraphy Act 1933, (IWTA, 1933).

Standing Advisory Committee on Radio Frequency Allocations (SACFA)

SACFA is a high level inter-departmental standing committee under the chairmanship of the Secretary (Telecom) and is responsible for formulating policies on Sitting Clearance regarding installation of wireless antennas by Cellular Service providers and other wireless users. SACFA look up cases of any authorize use/construction of wireless antennas by wireless users and it also takes up the cases of interference/obstruction/flying hazards caused by any wireless user/network. Wireless users have to abide by other local bye-laws regarding structural safety, environment and pollution.

National Frequency Allocation Plan (NFAP-2008)

Policy document National Frequency Allocation Plan- 2008 (NFAP-2008) has been evolved in line with the Radio Regulation of the ITU edition 2008 with a view to catering for conflicting demands on the spectrum, including those of new emerging technologies without unduly constraining the existing usages. NFAP-2008 is released and available on WPC Wing web site.

NFAP Review/Revision Committee under the Chairmanship of Wireless Adviser has been constituted to revise the NFAP-2008. The meetings were held in November and December 2010.

Satellite System Coordination

International coordination of satellite systems is required to be undertaken as per the provisions of the International Radio Regulations (RR) of the International Telecommunications Union (ITU). Coordination of frequency assignments for the individual satellite networks is necessary with satellite networks of other administrations for mutual coexistence and interference free operations of these networks.

Actual for period 2010-2011 (April-December, 2010)

Satellite coordination with other Administrations

No operator level coordination meeting took place, however, during the meeting of APG for WRC-12 (held at Hong Kong during 13-18 December, 2010), operator level contacts between ISRO and APT Satellite of China, MEASAT of Malaysia, Zorhsat of Iran were facilitated by WPC Wing to discuss the bilateral satellite coordination issues.

Coordination with ITU

Notifications

Frequency notices for registration requests for satellite networks INSAT-KU10 (55E), INSAT-KU10 (111.5E) and INSAT-2(83) located at 55E, 111.5E and 83E respectively of GSO has been forwarded to BR for publication in BR IFIC of Radiocommunication Bureau.

Administrative Due-diligence

Administrative Due-diligence for INSAT -KU10 (111.5E) has been forwarded to ITU for publication in BR IFIC of Radiocommunication Bureau.

Co-ordination Request

Co-ordination Request i.r.o. Satellite Network INSAT-MET74E, INSAT-MET81.5E, INSAT-MET82E, INSAT-MET83E and INSAT-MET93.5E at GSO locations 74, 81.5, 82, 83 and 93.5E respectively have been submitted to ITU for publication in BR IFIC of Radiocommunication Bureau.

Advanced Publication Information

Advanced Publication Information of INSAT-NAV-NGSA (NGSO) satellite network has been sent to BR for publication in IFIC.

Protection of Indian space, Terrestrial and Radio Astronomy Services from the Satellite Networks of other countries

Frequency assignments notices published in BR IFIC in respect of satellite networks of Administrations of China, PNG, Mauritius, Qatar, UAE USA, Russia, ISRAEL, AFS, KOREA, FRANCE, NIGERIA Norway, Germany, Japan, Vietnam, Switzerland, Cyprus, Malaysia, Luxemburg, Holland, Egypt, Sweden, Thailand, Greece, UK, Turkey, Ukrain, PAKISTAN, Canada, Singapore, Australia, Saudi Arabia, Monaco, Netherland and CÔTE D'IVOIRE were objected to protect Indian satellite and terrestrial networks.

Advanced Publication Information (API/s) published in BR IFIC in respect of satellite networks of UK, Holland, USA, Korea, PNG, Spain, Israel, Norway, Japan, Ukrain and UAE Administrations were objected in view of existing and planned INSAT satellite networks.

Coordination requests (CR/Cs):- Frequency assignments published in BR IFIC in respect of satellite networks of China, Azerbaijan, France, Luxemburg, PNG and Singapore Administrations were objected in view of existing and planned INSAT satellite networks.

Frequency notices for registration (Part I-S):- Frequency assignments published in BR IFIC in respect of satellite networks of China and Russia Administrations were objected in view of existing and planned INSAT satellite networks.

FSS Plan as per Appendix-AP30B:- Frequency assignments in respect of satellite networks of Holland, Singapore and Luxemburg Administrations were objected in view of existing and planned INSAT satellite networks.

Following Indian satellite networks were published in the special sections of International Frequency Information Circular (BRIFIC):

Frequency notices for registration (Part II-S)

(i) Part II-S i.r.o. **CHANDRAYAAN-1** satellite networks have been published.

(ii) Part I-S i.r.o. INSAT-2A (83E), INSAT-2B (93.5E), INSAT-2C (74E), INSAT-EK48 (48E), INSAT-EK55 (55E), INSAT-KU10(111.5)E (111.5E) and INSAT-KU10(55)E (55E) satellite networks have been published.

Coordination requests (CR/C)

(i) Coordination requests (CR/C) i.r.o. INSAT-TTC(81.5E) (81.5E) have been published with RR 9.7 against ARS, BLR/IK, CHN, CYP, F, J, MLA, PAK, PNG, RUS/IK, RUS, SNG, THA, TUR, USA

(ii) Coordination Progress Report (CR/D) i.r.o. INSAT- KAUHF (74), INSAT- KAUHF (83) and INSAT- KAUHF (93.5) at 74E, 83E and 93.5E respectively; and INSAT-NAV-A-GS (NGSO), INSAT-NAV-A(34) (34E), INSAT-NAV-A(83) (83E) and INSAT-NAV(131.5) (131.5E) of India has been published in International Frequency Information Circular of Radiocommunication Bureau (BRIFIC)

Advanced Publication Information

Advanced Publication Information (API) i.r.o. INSAT-MET81.5E (81.5E), INSAT-MET(82E) (82E), INSAT-MET(94E) (94E), INSAT-NAV-A-GS and OCEANSAT-2 (NGSO) of Indian Administration have been published.

FSS Plan Publications (AP30B)

- INSAT-EXC-40.5E (40.5E), INSAT-EXC-49E (49E), INSAT-EXC-59.1E (59.1E), INSAT-EXC-67E (67E) and INSAT-EXC-114E (114E) respectively have been published under IFIC.
- Conversion of Publication i.r.o. IND00000 (74E) in to assignment is published in BR IFIC.

Administrative Due-diligence Publication

Due-diligence under RES-49/1382 Publication i.r.o. INSAT-KU10(55E) at 55E location of Indian Administration have been published.

National Meetings

Three national levels meeting with the satellite operators have been conducted to discuss various satellite coordination issues.

International Conference and Meetings

Introduction: National Preparations, participation and follow-up action for various international and regional conferences under the aegis of International Telecommunication Union (ITU) and Asia-Pacific Telecommunity (APT) were undertaken to protect national interests especially in the context of spectrum management and radio communication related matters.

Achievements from April-December, 2010

India hosted first ever meeting of Working Party 4A, 4B and 4C hosted by ISRO in Bangalore during 15 Mar - 01 Apr 2010. More than 250 international delegates participated in the meeting and meeting was very successful. India submitted a proposal on working document towards the development of draft CPM text on World Radiocommunication Conference-2012 (WRC-12) Agenda item 1.13. WPC Wing Officers participated in the following meetings of ITU and APT.

- 2010 session of ITU Council held in Geneva, Switzerland during 13 - 22 April, 2010.
- Fifth and final meeting of the ITU-R Joint Task Group 5-6 held in Geneva during 30 April to 07 May, 2010.
- Meetings of the Working Parties 6A, 6B and 6C of the ITU-R Study Group 6 held in Geneva, Switzerland during 27 to 30 April 2010. India also submitted two technical proposals for consideration of the Working Party 6A.
- Meeting of the Working Party 5D of the ITU-R Study Group 5 held in Vietnam during 09-16 June, 2010.
- ITU/IDA workshop on efficient use of spectrum/orbit resource held in Singapore during 17-18 Jun 2010.
- Meeting of the Working Party 4C of the ITU-R Study Group 4 held in Geneva during 28 June to 06 July 2010.
- Meeting of the Working Party 4A of the ITU-R Study Group 4 held in Geneva during 07-15 July 2010.
- Third meeting of the Indo-British Telecom Forum meeting at London from 06-08 September 2010.
- Ninth meeting of the APT Wireless Forum (AWF-9) held in Seoul, Republic of Korea during 13 to 16 September 2010. India also submitted one contribution on "Proposed Frequency Arrangement at UHF 698-806 MHz" for consideration by the AWF-9.
- Ninth meeting of the WP5D of ITU-R SG 5 scheduled at Geneva from 13-20 October 2010. India also submitted one contribution on "Proposed frequency arrangement for UHF band 698-806 MHz" for consideration by this meeting.
- Meeting of the ITU-R Special Committee on Regulatory and Procedural Matters held in Geneva, Switzerland during 1 to 5 November 2010.
- ITU World Radiocommunications Seminar-2010 held in Geneva, Switzerland during 6 to 10 Dec 2010.

- Fourth meeting of Asia Pacific Telecommunity Conference Preparatory Group for WRC-12 held in Hong Kong, China during 13 to 18 Dec'2010. Three proposals on WRC-12 Agenda item no. 1.2, 1.3 and 7 which were sent for the consideration of this meeting were included in the common APT proposal for consideration of the 2nd meeting of the ITU-R Conference Preparatory Meeting (CPM11-2) which is scheduled at Geneva, in Feb 11.

- ITU's Plenipotentiary Conference 2010 (PP-10) held in Mexico from 4-20 Oct10. Shri P. K. Garg, Ex-Wireless Adviser to the Government of India was elected as member of Radio Regulations Board (RRB).

National Preparatory Committee (NPC)

The NPC for WRC-12, which has been constituted to coordinate and harmonize national views on various agenda items of WRC-12 for formulating Indian proposals for the work of the Conference as well as for finalizing Indian view-points on proposals of other administrations met three times. It finalized eight proposals on agenda items 1.2, 1.5, 1.13, 1.18, 1.23, 4 and 7 of the WRC-12.

Anticipated achievements from January-March, 2011

Finalisation of the National Frequency Allocation Plan

The meeting of NPC to finalise proposal for the next meeting of APG and WRC-12.

Participation in the ITU and APT meeting will be continued to highlight Indian viewpoints.

Regulations

Actual Achievements, activities and performance of the Unit for the period April-December, 2010

Following Notification under sections 4 and 7 of the Indian Telegraph Act, 1885 (13 of 1885) and sections 4 and 10 of the Indian Wireless Telegraphy Act, 1933 (17 of 1933), regarding usage of very low power radio Frequency devices, or equipments including Short Range Devices or Radio Frequency Identification devices, were published through the Gazette Notification during the period. It gives a great deal of benefit to the people of our country, specially in the field of IT industry including other industry.

Short title and commencement: Use of very low power Radio Frequency devices, for indoor applications in the 13.553-13.567 MHz frequency range (Exemption from Licensing Requirement) Rules, 2010. [G.S.R.884(E) dated 4th November, 2010}

The "Core Group" formed by National Disaster Management Authority (NDMA), New Delhi, finalized the Guidelines on National Disaster Communication Network (NDCN) after convening various meetings consisting of experts from various Ministries, within the country wherein WPC Wing made significant contribution in the following manner.

NDMA were informed during various Core Group meetings that the current National Frequency Allocation Plan-2008 (NFAP-2008) document, effective from 1st April, 2009, has been developed within the framework of ITU taking into account spectrum requirement of Government as well as private sectors in the fast changing scenario with a view to meeting requirements of new emerging and existing technologies and taking into account the decisions/recommendations of the World Radiocommunication Conferences 2003 & 2007 (WRC-2003 & 2007) of International Telecommunication Union (ITU), etc.

As per NFAP-2008, which is available on WPC Wing's website viz. www.wpc.dot.gov.in, suitable provisions for public protection and disaster relief (PPDR) communications have been made in the current NFAP spectrum policy document to meet the spectrum requirement for various wireless communication needs during any disaster. Relevant IND 73 remark mentioned in the NFAP-2008 document, presently in force has been carved out taking into account the existing International Radio Regulation practices adopted worldwide, which depicts that requirement of public protection and disaster relief (PPDR) communications may be considered, as far as possible, in the frequency bands 380-400 MHz, 406.1-430 MHz, 440-470 MHz, 746-806 MHz, 806-824/851-869 MHz, 4940-4990 MHz and 5850-5925 MHz on a case by case basis depending on specific need and equipments availability.

Anticipated Achievements, activities for the period April-December

Based on requests received from various applicants, delicensing the usage of low power Radio Frequency devices is under process in the frequency band 433 - 434 MHz band to work in license free conditions in the band subject to compliance of certain technical parameters on non-interference, non-protection and shared (non-exclusive) basis.

Automation of Spectrum Management & augmentation Monitoring System

- **The NRSMMS Project:** The project 'Design, Supply, Installation & Commissioning of "National Radio Spectrum Management & Monitoring System (NRSMMS)" is being implemented by the WPC Wing. Under the project, spectrum management and monitoring functions have been automated with a view to making these activities effective and efficient. The NRSMMS has two interrelated components of "Automated Spectrum Management System (ASMS)" and "National Spectrum Monitoring System (NSMS)". ASMS has been completed and in operation. The completed facilities under NRSMMS project have been put under AMC w.e.f. 15/10/2009 as per the Contract Agreement. The closure of SHF part of NRSMMS project is in progress. The AMC for the 2nd year is being extended.

The achievements during the year in the field of Radio Frequency Spectrum Management, new frequency assignment / licenses issued etc. are given in the following table.

	April-December, 2010 (Actual)	January-March, 2010 (Anticipated)
1.1 Radio Frequency Spectrum Management		
New Radio Frequency authorized to various users	512598	25350
Frequency assignments intimated to Radio-communication Bureau of the ITU for registration	–	–
Radio Frequency Assigned for visits of VVIPs	–	–
SACFA (Standing Advisory Committee on Frequency Allocations) meeting held	–	–
Inter-departmental meetings held	–	–
Sites cleared for new wireless stations	321793	265511
No. of special Monitoring cases	–	–
1.1 Wireless Licences Issued		
No. of Import Licences Issued	856	550
No. of Licences issued to new Wireless Stations	102292	27650
No. of Licences Renewed (for Wireless Stations)	28150	4085
1.1 Certificate of Proficiency (COP) Examination/Licences		
No. of COP Examination conducted	36	13
No. candidates admitted	7321	2700
No. of Licences issued	1756	575
No. of Licences renewed	2809	800
No. of Licences issued to New Radio Amateur Stations	40	60
No. of Licences renewed for Old Radio Amateur Stations	272	300

Wireless Monitoring Organisation

Wireless Monitoring Organization continues to provide interference-free wireless services in the increasingly crowded radio environment besides providing vital technical data for the introduction of new services such as 3G, BWA etc. to WPC wing.

Radio Monitoring - a regulatory and treaty requirement

Radio monitoring service, a regulatory and treaty requirement, is carried out by the Wireless Monitoring Organisation of the Wireless Planning & Co-ordination Wing (WPC Wing), Ministry of Communications and

IT, for the Government of India. It is essentially technical in nature and its broad objectives are derived from the international treaty document - Radio Regulations of the International Telecommunication Union.

The Preamble of the Radio Regulations stipulates the following broad objectives for the radio monitoring service of every Member State of the International Telecommunication Union.

- to facilitate equitable access to and rational use of the natural resources of the radio-frequency spectrum and the geostationary-satellite orbit;
- to ensure the availability and protection from harmful interference of the frequencies provided for distress and safety purposes;
- to assist in the prevention and resolution of cases of harmful interference between the radio services of different administrations;
- to facilitate the efficient and effective operation of all radio communication services;
- to provide for and, where necessary, regulate new applications of radio-communication technology.

Major functions of Wireless Monitoring Organisation (WMO)

With the above listed objectives forming the core functions of the WMO, the national spectrum management body the WPC Wing requires a number of services from the WMO. In practical terms, the major functions of the WMO are as under:

- Resolution of the harmful interference;
- Monitoring for identification of frequency sub-bands for introduction of new services and/or for additional allocation to existing services;
- Monitoring for spectrum recovery - unused/under-used frequency authorizations;
- Monitoring for ensuring adherence to licensing conditions;
- Monitoring / measurements for sharing studies;
- Assistance to domestic wireless users;
- Assistance to foreign administrations;
- Participation in special monitoring campaigns of the International Telecommunication Union;
- Measurements on radio emissions (intentional & non-intentional) for the possible introduction of new radio communication standards, and also for studying the EMC compatibility of the proposed new installations;
- Inspection of licensed installations; and
- Monitoring of space emissions to protect authorized satellite transmissions.

Challenges before WMO

The increasing dependence of the society (the Government and the public alike) on the wireless communications demands WMO to ensure interference free radio communication environment. Therefore,

WMO's primary focus, at present, is on public mobile radio communication services, public broadcasting services and safety-of-life services. WMO is earnestly gearing up its resources ? manpower and machine-power ? to ensure that these services continue to operate in interference-free environment. The primary reason for the interference protection to these services lies in their critical importance to the society as a whole. With respect to public mobile cellular service, WMO has twin objectives: (i) to identify and eliminate the sources of interference occurring due to a multitude of reasons, and (ii) to find unused spectrum for expansion of existing 2G services and for the 3G services. In so far as public broadcasting is concerned, its transmissions have been found to be affecting aeronautical mobile communications (civil aviation) and also infringing licensing parameters. To address the needs of such crucial services, WMO is in the process of procuring custom-designed radio monitoring products. Beside the service-aspect of radio monitoring, WMO has to ensure the quality of the spectrum for which WPC wing/WMO's revenue collection is in the order of about Rs 3500 crore per annum from the license holders towards spectrum charges.

With the approval of Telecom Commission, WMO has issued an Order, in November, 2009, to establish of six new Wireless Monitoring Stations at Bhubaneswar, Dehardun, Lucknow, Patna, Raipur & Vijayawada. The technical infrastructure for these six additional Wireless Monitoring Stations would more effectively address the monitoring needs of public mobile and broadcasting services than what is currently available to other Wireless Monitoring Stations. To this end, WMO has initiated the process of seeking the approval of the competent authority for the procurement "Six Vehicle mounted Monitoring Terminals with Portable Monitoring equipments and network analysis and coverage measurement equipments". The expected cost of these facilities is about Rs. 28.0 crore and the procurement is to be effected in 2010-11.

The case for the procurement of land for the new Wireless Monitoring Stations was taken up with the respective State Governments in 2007. With continuous perusal, WMO has already procured land, at Bhubneshwar, Dehradun & Naya Raipur from the respective State Govts. for establishing Wireless monitoring Stations.

WMO intends to procure four nos. of "SHF Microwave Monitoring Terminals (MWTs)" at an estimated cost of Rs.28.0 crore in the current Five Year Plan. The procurement of these MWTs would be the first phase of equipping the WMO with the microwave monitoring capability.

In order that WMO effectively and efficiently addresses new monitoring challenges emerging from the increasingly crowded radio frequency spectrum, WMO has taken steps to introduce new technologies and capacity-building. As for new technologies, procurement of software and hardware has already been initiated. Intensive training on monitoring as well as information technology is aimed at capacity-building. These two aspects are being jointly handled by the MHQ and Training & Development Centre, New Delhi.

Satellite Monitoring Earth Station at Jalna (Maharashtra) continues the monitoring of signals from all satellites located in the Geo-arc of interest to India. Its measurement functionality is planned to be enhanced in the near future.

The construction of two new buildings at Visakhapatnam and Bhopal was completed in 2009. Wireless Monitoring Stations at these places have started functioning from the newly constructed buildings. It is pertinent to add here that WMO has issued the expenditure sanctions for Rs 14.66 crore for the

construction of the office buildings of WMSs Jallandhar, Mangalore and Siliguri. Further, preliminary estimate prepared by CPWD for the new buildings at Nagpur is under the process of financial concurrence.

WMO has undergone major modernization of Radio Spectrum Monitoring capabilities through World Bank assisted Telecom Reform Project. Under this project, 21 V/UHF Mobile Monitoring Terminals were procured. Additionally, two HF DF facilities were also procured.

In recognition of commendable works done in the year 2009-10 for promotion of Hindi in official work of WMO, the Raj Bhasha Shield distribution ceremony was organized at International Wireless Monitoring Station, New Delhi, on 19th December, 2010 under the Chairmanship of Sh. V. V. Singh, Director, Wireless Monitoring Organisation. The Rajbhasha Shields were awarded to the International Wireless Monitoring Station, New Delhi (from "A" region), International Wireless Monitoring Station, Mumbai (from "B" region), and to International Wireless Monitoring Station, Kolkata & Wireless Monitoring Station, Bangalore, both from "C" region.

Statistical performance data during first nine month of the current year i.e. April-December, 2010 and anticipated performance during January-March, 2011 is as given below:-

S. No.	Particulars	Actual achievements during April-December, 2010	Anticipated achievement during January-March, 2011
1.	Monitoring Assignments Handled.	9028	6800
2.	No. of Wireless Transmission monitored.	104934	241000
3.	Technical assistance to users to maintain their operation within specified standards.	549	600
4.	Infringements communicated to various wireless users for remedial action.	5285	1800
5.	Channel days utilized for Radio Monitoring.	4821	4480
6.	No. of Wireless Stations Inspected.	2763	900
7.	No. of Radio Noise measurements.	693988	45000
8.	No. of high priority interference complaint resolved.	83	20
9.	No. of standard interference complaint resolved.	22	10
10.	Man days devoted for high level technical work.	350	100
11.	No. of training courses conducted.	03	02
12.	No. of man days for training.	211	213

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III. 2 Telecommunications Engineering Centre

INTRODUCTION

Telecommunications Engineering Centre (TEC), is the Technical wing of the Department of Telecommunications (DOT). Its responsibilities include among other things:

- Preparing Standards and Specifications for harmonious growth of the Indian Telecom Network and Services for the public as well as private sector operators.
- Carrying out evaluation of equipment and services.
- According approvals for equipment, technology and services.
- Studying new technology and services and give technical advice to DOT for their introduction in the Indian Telecom Network.
- Technical and Advisory support for DOT.
- Technical advice to TRAI, TDSAT, USOF, BSNL and MTNL, on request of DOT.
- Drawing up Fundamental Technical Plans of DOT.
- Interaction with multilateral agencies like APT, ETSI and ITU etc. through DOT.
- Creating facilities to further the objectives of MRA.
- Develop necessary expertise to imbibe the latest technologies and results of R & D.
- Coordinate with C-DOT to provide details on the technological developments in the Telecom Sector for policy planning at DOT level.

Achievements

Achievements for the period April - December 2010 are given as under:

New GRs/IRs issued	4
GRs/IRs revised	11
Test Schedules/Procedures prepared	15

As part of its activity for according approval

- 97 Interface Approvals were issued for equipment interfacing with other network.
- 61 Certificate of Approval were issued for network of private operators.
- 11 Type Approvals were issued for equipment.

- Revenue collected from various vendors as test fee and sale of documents, during April 2010 - September 2010 is Rs. 1.34 crore.
- Rendered expert advice on switching and transmission issues to DOT, TRAI and TDSAT.
- 40 VSAT terminals were installed in the NE States under the project 'Satellite based broadband Network in NE Region'.
- Formation of National Telecom Academy (NTA) under TEC, at ALTTC, Ghaziabad.

Presentations in International Meetings

- Preparation and presentation of following Proposals, in meetings of APT, and WTDC-10 meeting of ITU, at Hyderabad
  - i. Creation of Common Database of Information and sharing-mechanism of Radio Equipment for Emergency Communications.
  - ii. Interoperability in Next Generation Networks.
  - iii. ITU-D Assistance in Digital Broadcasting.
- Formulation of the 'Hyderabad Declaration' in WTDC-10 meeting of ITU.
- Additional contributions given in various sessions of ITU and APT Meetings, to safeguard the interests of India.
- Presentation on 'NGN Regulation and Migration Strategies' and 'Security Issues in IPv6' in workshop of ITU at New Delhi.
- Presentation on 'Creating IPR through supporting R&D to enable Indigenous Manufacturing' in seminar on India Telecom 2010 of CII, at New Delhi.

Participation in the following International meetings, to keep abreast with latest developments in new technologies, and to protect interests of India

(i) ITU-T Study Group-13 meeting at Geneva (ii) ITU-T meeting of Focus Group on Future networks at Geneva (iii) WTDC-10 Meeting of ITU at Hyderabad (iv) ITU-R Working Party 4B meeting at Geneva (v) ITU-T NGN-GSI meeting at Geneva (vi) ITU-T meeting of Focus Group on Future networks at Geneva (vii) ITU Plenipotentiary Conference-2010 at Guadalajara, Mexico (viii) ITU-R Working Party 5D meeting in China; ITU-T SG-5 meeting at Geneva (ix) ITU-R Working Party 5A meeting at Geneva (x) ITU-T meeting of Focus Group on Future networks at Ljubljana (xi) APT preparatory meeting for WRC, at Hong Kong.

Functioning of NTA, at ALTTC Ghaziabad

- 2 Workshop on 'Mobile Number Portability.
- 2 Workshop on 'EMF Measurement and Compliance Audit.

Conduction of important meetings and workshops

- Meeting of National Working Party 5A & 5B.
- Meeting of National Working Group 11, 15 & 17.

Other Important Activities

- ISO 9001:2008 certificate was awarded to TEC.
- Signed MoU for 'Support in Migration from IPv4 to IPv6' with IPv6 Promotion Council, Japan.
- Validation of pilot project of Rural GSM network under USOF.
- Field trial of C DOT's ADSL and DSLAM project.
- Launch of Bilingual website of TEC.
- Released National IPv6 Deployment Roadmap.
- Compiled Compendiums on IPv6, Rural Communication, and NGN Release-II.
- Conduction of meetings with State Governments, Service Providers, and other Stakeholders, for IPv6 implementation.
- EMF Test procedure released.
- Carried out MNP testing.
- Submitted reports on "Effective Steps to Boost Telecom Technology Development & Manufacturing in India"; report of Core Team under Strategic Plan of DOT on "Research & Development"; "MPIN-based Mobile Banking PoS Devices".
- Released quarterly TEC Newsletters on various technologies.

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III. 3 Universal Service Obligation Fund

Organizational Structure

The Universal Service Obligation Fund formed by an Act of Parliament is headed by the Administrator USO Fund, appointed by the Central Government, for the administration of the Fund. He is empowered to formulate procedures for implementation of USO Fund schemes and disbursement of funds from USOF. His office works as an attached office of the Department of Telecom, Ministry of Communications and Information Technology.

Current status of ongoing activities

Public Access

a) Agreements were signed with M/s BSNL in November2004 to provide subsidy support for provision of VPTs in 62302 (revised from 66822) no. of uncovered villages in the country excluding those villages having population less than 100, those lying in deep forests and those affected with insurgency. The provision of VPTs in these villages has been included as one of activities under Bharat Nirman Programme. As on 31.12.2010, 61985 VPTs have been provided under this scheme.

Actual achievements during 2010-11 up to Dec'2010	Anticipated achievements during January-March 2011
327	50

b) Reconciliation of the VPTs working in the inhabited villages as per Census 2001 was carried out taking into account the existing VPT and those provided under Bharat Nirman. All the remaining 62443 inhabited villages as on 31.10.2007 as per Census 2001 irrespective of criteria of population, remoteness, accessibility and law &order situations have been included for provision of VPTs with subsidy support from USO Fund under this scheme. Agreements in this regard have been signed with BSNL on 27.02.2009. A total number of 45,783 VPTs have been provided under this agreement as on 31.12.2010. The remaining VPTs are likely to be provided in a phased manner by February 2012.

Actual achievements during 2010-11 up to Dec'2010	Anticipated achievements during January-March 2011
3401	2500

c) Agreements were signed with M/s BSNL for replacement of 1,85,121 number of VPTs in September 2003 and March 2004, which were earlier working on Multi Access Radio Relay (MARR) technology

and installed before 01.04.2002. A total number of 1,84,648 MARR VPTs have been replaced by M/s BSNL till December 2010.

Actual achievements during 2010-11 up to Dec'2010	Anticipated achievements during January-March 2011
127	10

Individual Access

A MoU has been signed with BSNL on 12.03.2009 wherein subsidy support of Rs. 2000 Crore per annum for a period of three years is being given from USOF to BSNL for operational sustainability of their Rural Wire line Household DELs installed prior to 01.04.2002 in lieu of ADC having been phased out.

Infrastructure Support for Mobile Services (Phase-I) A scheme was launched by USO Fund to provide subsidy support for setting up and managing 7871 number of infrastructure sites/ towers (revised to 7363) in 500 districts spread over 27 states for provision of mobile services in the specified rural and remote areas, where there is no existing fixed wireless or mobile coverage. Villages or cluster of villages having population of 2000 or more and not having mobile coverage have been taken into consideration for installation of the tower under this scheme. The number of towers is subject to change based on actual field survey and coverage achieved thereof as per the terms and conditions of the Agreements. The infrastructure so created shall be shared by three service providers for provision of mobile services. The agreements effective from 01.06.2007 have been signed with the successful bidders in May 2007. As on 31.12.2010, 7236 towers have been set up under this scheme. The remaining towers under this scheme are likely to be commissioned in a phased manner by March 2011. Utilizing the infrastructure so created, BTSs are being commissioned and mobile services started by different Universal Service Providers from these towers in a phased manner.

Actual achievements during 2010-11 up to Dec'2010	Anticipated achievements during January-March 2011
138	127

RURAL BROADBAND SCHEMES

Brief achievements during 2009-10

- A total of **1, 37,321 broadband connections** were provided during the year 2009-10 under the Wireline Broadband Scheme of USOF.
- As of March 2010, **Rs. 42.57 crore** subsidy was disbursed under the said scheme.
- Initiative has been taken to strengthen OFC network in rural areas to provide sufficient backhaul capacity to integrate voice and data traffic.

The State of Assam has been taken up first and an agreement signed with BSNL on 12 February 2010 at a subsidy quote of Rs. 98.89 crore.

Rural Broadband Scheme for expanding provision of Wireline Broadband Connectivity upto village level

For providing broadband connectivity to rural & remote areas, USOF has signed an Agreement with BSNL on January 20, 2009 under the Rural Wireline Broadband Scheme to provide wire-line broadband connectivity to rural & remote areas by leveraging the existing rural exchanges infrastructure and copper wire-line network. The speed of each of the broadband connections shall be at least 512 kbps always on. Under this scheme, BSNL will provide 8, 88,832 wire-line Broadband connections to individual users and Government Institutions and will set up 28,672 Kiosks over a period of 5-years, i.e. by 2014. The subsidy disbursement is for (i) broadband connections, Customer Premises Equipment (CPE), Computer/ Computing devices (ii) setting up of Kiosks for public access to broadband services. The estimated subsidy outflow is Rs. 1500 crore in 5 years time that includes subsidy for 9 lakh broadband connections, CPEs, computers/computing devices and Kiosks. As on 30th November 2010, a total of 2, 32,852 broadband connections have been provided and 670 kiosks have been set up in rural and remote areas.

Actual achievements during 2010-11 up to November'2010	Anticipated achievements during November 2010 - March 2011
95531Broadband Connections & 666 Kiosks	54469 Broadband Connections & 34 Kiosks

Optical Fibre Network Augmentation, Creation and Management of Intra-District SDHQ-DHQ OFC Network in service area of ASSAM"

A Scheme has been launched to provide sufficient back-haul capacity to integrate the voice and data traffic from the access network in the rural areas to their core network by strengthening the OFC network. This scheme considers OFC Network augmentation between the blocks' HQ and Districts' HQ to begin with. USOF, through this Scheme, shall provide subsidy support for augmentation, creation and management of intra-district SDHQ-DHQ OFC Network on the condition that it will be shared with other Telecom Operators at the rates prescribed in the Agreement. Assam has been taken up first for implementation. The tender for Assam was floated on 30.10.2009 and BSNL had been declared successful at the subsidy quote of Rs. 98.89 crore and subsequently, an Agreement has been signed with BSNL on 12.02.2010 to implement the scheme in Assam.

Salient Features of the Scheme: This OFC Scheme would be undertaken on BOO model, i.e. build, operate & own basis, and accordingly, BSNL would build, operate, own and manage all the equipment/ infrastructure for the provisioned intra-district augmented/created OFC Transport network to connect 354 total locations in Assam in total 27 Districts.

All locations shall be connected on physical OFC Ring Route(s) with the DHQ node ensuring the cable route diversity and ring capacity of at least 2.5 Gbps, with the capability to efficiently transport various protocols, including TDM, IP, Frame Relay, ATM, etc., for integrated voice, data and video signals in all districts of ASSAM within 18 months from the date of signing of the Agreement. **The Agreement shall be valid for a period of seven years from the effective date.**

At least 70% of the subsidized bandwidth capacity, created under the scheme, shall be shared with the licensed service providers in the area of ASSAM at a rate not more than 26.22% of the current TRAI ceiling tariffs. About 61 nodes have been installed as on 30th November 2010 (Out of 354).

PLANNED USO FUND SCHEMES

Stream-IV: Provision of Broadband connectivity to villages in a phased manner

I) "Rural Wireless Broadband Scheme"

The USOF is working on a scheme for providing financial assistance by way of subsidy for the wireless broadband active infrastructure such as BTS, by utilizing the existing infrastructure available with the Telecom service providers.

This scheme would provide broadband coverage to a majority of villages at a speed of 512 kbps. With the completion of the BWA and 3G Spectrum auction, the stage is set for the launch of the scheme. The scheme has been submitted for approval of the competent authority.

II) Satellite Broadband connectivity for Rural & Remote Areas

The Satellite Broadband Connectivity is proposed for those rural & remote villages where terrestrial connectivity, i.e. wireline / wireless network, is not feasible. The USOF has identified about 5000 such villages, which do not have any terrestrial connectivity. Initially, about 1200 such villages are envisaged to be provided broadband on this media.

The scheme is under approval from the competent authority and would be launched shortly. It is envisaged to be rolled out during the current Five Year Plan (2007-2012).

Stream-V: Creation of General Infrastructure like OFC - Augmentation, Creation and Management of Intra-District SDHQ-DHQ OFC Network in States other than Assam

After the launch of the Augmentation, Creation and Management of Intra-District SDHQ-DHQ OFC Network Scheme in Assam, a similar scheme for NE Circle (comprising States of Meghalaya, Manipur, Tripura, Mizoram, Arunachal Pradesh, & Nagaland) has been approved by the competent authority. Under the said schemes, there will be creation of bulk bandwidth. Other states (to start with West Bengal Circle which comprises the States of West Bengal and Sikkim) would be taken up subsequently in a phased manner.

Status of Disbursements made and availability of Funds

(Rupees in Crore)

Financial Year	Funds collected as USL	Funds allocated	Funds disbursed	Reimbursement of LF and spectrum charges	Balance
2002-03	1653.61	300.00	300.00	2300.00	1353.61
2003-04	2143.22	200.00	200.00	2300.00	3296.83
2004-05	3457.73	1314.59	1314.59	1765.68	5439.97
2005-06	3215.13	1766.85	1766.85	582.96	7206.41
2006-07	3940.73	1500.00	1500.00		9917.54
2007-08	5405.80	1290.00	1290.00		14033.00
2008-09	5515.14	1600.00	1600.00		18192.52
2009-10	6145.73*	2400.00	2400.00		14,157.01
2010-11		2400.00**	2190.18 (As on 31.12.2010)		
Grand Total	**31,477.09**	**12771.44**	**12561.62**	**6948.64**	

** Approximate as Collection of 2009-10 is provisional.*

***Against the Budget Estimate of Rs 3000 Crore for the financial year 2010-2011, a budget allotment of Rs. 2400 Crore was received.*

Notes:-

1. *UAL collection started from the year 2002-03.*
2. *The UAL collection figures in Col. (2) have been taken as per booked figures in DOT A/Cs.*
3. *Payment under Col. (5) have been taken as per the decision of Ministry of Finance vide letter dated 04.06.2008.*

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III. 4 Controller of Communication Accounts Offices

With the expansion of the range of functions delegated to DOT Cells in all Telecom Circles, beyond the mere settlement of pension and terminal benefits, the nomenclature of these DOT Cells was changed to office of Controller of Communications Accounts. The role of the CCA offices flows from the various policy initiatives taken over a period of time. The CCA Unit has evolved into a crucial professional interface between the Department of Telecom and its various stake holders on various policy issues, such as licence fee and spectrum charges, USO fund disbursement etc.

FUNCTIONS BEING PERFORMED BY THE CCA OFFICES

The 26 CCA Offices are located across the length and breadth of the country and perform the following vital functions:

Statutory Functions

i) **PENSION:** With the promulgation of Rule 37 (A) of the CCS Pension Rules, the government has a critical role in the payment of pension to the erstwhile government servants absorbed in the PSU. The CCA Unit is responsible for budgeting of pension expenditure and authorization of retirement benefits on CDA and IDA scale. Presently, the CCA offices are disbursing pension to over two lakh pensioners.

Financial year	No. of Pensioners (in lakh)	Pension disbursed (Rs. in crore)
2003-04		1026.50
2004-05	1.56	1172.59
2005-06	1.66	1299.75
2006-07	1.72	1345.39
2007-08	1.81	1511.94
2008-09	1.81	1982.81
2009-10		1796.14
2010-11 (upto Dec. 2010)		2394.90

(ii) **PENSION CONTRIBUTION AND LEAVE SALARY:** The CCA offices carry out the functions of collection, scrutiny and monitoring of the amounts to be received as pension contribution and leave salary by the government.

iii) **GPF & LONG TERM LOANS ACCOUNTING:** The CCA offices are also responsible for maintenance of GPF, long term loans and advances and their recovery/accounting.

iv) **AUDIT FUNCTIONS:** The CCA Offices have been exercising post audit on the disbursements made by the designated banks and post offices on account of the pension and allied benefits to the pensioners.

v) **FUNCTIONING AS CPIOs UNDER RTI ACT, 2005:** Officers in the offices of CCA have been designated as Central Public Information Officers (CPIO) and Departmental Appellate Authorities (DAA) for ensuring smooth provisioning of information under the RTI Act 2005 for all matters being dealt with by CCA offices.

vi) CCA office is the basic unit of departmentalized accounts organization and performs the PAO and DDO functions for field office like TERM, WMO and RLO.

B) ASSESSMENT & REVENUE FUNCTIONS

i) **COLLECTION OF LICENCE FEE:** The CCA is responsible for the assessment & collection of licence fee as a percentage on revenue share from all cellular, basic and unified access service licensees together with the scrutiny of documents submitted by them viz.AGR statements and Affidavits. CCA offices deal with licence fee related work of licensees under the UASL/basic/CMTS/NLD/other services.

ii) **VERIFICATION OF DEDUCTIONS:** As per the licence agreement, licensees claimed deductions while calculating the licence fee payment. These deductions, (on account of pass through charges, roaming service charges, sales tax, service tax) are verified on a quarterly basis by the CCAs. The deductions claimed by the licensees vary from 25% to over 90% of the gross revenue under different categories of licences.

iii) **COLLECTION OF SPECTRUM CHARGES:** The work relating to collection of spectrum charges in respect of cellular operators on revenue sharing basis has been delegated to CCA offices since 1st April, 2004. The spectrum fee at a prescribed percentage of the revenue is collected in advance in each quarter.

iv) **MAINTENANCE OF FINANCIAL BANK GUARANTEES:** The work of maintenance, renewal, revision and invocation of the financial bank guarantees submitted by the licensees has been entrusted to the CCAs.

Collection of Captive V-SAT Licence Fee

The licence fee and the spectrum charges collected from the Telecom. Service Providers are a major source of non-tax revenue to the Govt. of India. With the exponential growth in the sector, revenue on account of licence fee and spectrum charges has also been increasing as is evident in the following table:

(Rs. in crore)

S.No.	Items	2007-08	2008-09	2009-10	2010-11 (Upto Dec'2010
1	Spectrum charges	3057.00	3454.55	3809.54	2319.63
2	License fee	8854.00*	9511.00	9778.52	5232.07
3	Total	11911.00	12965.55	13588.06	7551.70

**This does not include one time entry fee of Rs. 12500 crore for UASL.*

3G/BWA auction has resulted in collection of Rs.106264.73 crore in FY 2010-11.

USO related Functions

The USOF is disbursed and monitored at the State level by the offices of CCAs. While performing the USO functions the CCAs are verifying the claims before the funds are disbursed. They also carry out physical inspection and monitoring, for establishing the veracity of claims. In addition the CCAs act as an interface between service providers. They also interact with the state Governments. The amount being disbursed has been increasing over years from Rs. 200crore in FY 2003-04 to Rs.2400 crore in FY 2009-10. During the current FY Rs. 2190 crore has been disbursed upto 31.12.2010.

Administrative functions

The CCAs are performing DDO functions for WMO and TERM Cells, the field offices of DOT. Apart from carrying out other administrative functions as the Head of the Departments (HOD), the CCAs also handle court cases at field level where the Govt. of India is a party in matters of licence fee, spectrum charges, pension, absorption issues etc. The CCA offices are also conducting Pension Adalats to settle the pension related grievances at a single forum that was not hitherto available to them.

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III. 5 Vigilance Activities

VIGILANCE ACTIVITIES

Punitive Vigilance

Complaints are received from various sources like public, private, Ministers, Member of Parliament, MLAs, Prime Minister's Office, Central Vigilance Commission, CBI etc. by the Vigilance wing of DOT and the field units of MTNL/BSNL. These complaints are then taken up for investigation to identify the delinquent officers/officials and to fix responsibility. During the period 2010-11 (April-December), a total of 210 complaints were handled out of which 52 complaints were taken up for investigation. Besides investigation, advice of disciplinary/other action was given against 25 officers/officials. During the same period, 30 Officers were charge sheeted. 84 Officers/officials were punished for major penalty after conclusion of disciplinary proceedings.

Staff Training

To keep the staff aware of the different activities which attract Vigilance Angle, a Training Schedule is prepared every year:-

- Different Telecom Circles are covered every year where presentation on preventive vigilance is given by the DOT Vigilance.
- Similarly, Senior Officers in different Telecom Circles are given presentations of Technological Frauds for their monitoring and prevention.
- 5 days training courses are also organised for various telecom Circles. During the period 21 such courses were conducted all over the country. A total of around 537 officers of various levels were acquainted with various activities relating to vigilance and disciplinary proceedings. These trained officers later on provide a pool of officers to work as IOs, POs and VOs.

Vigilance Awareness Week

Vigilance Awareness Period was observed from 25th October to 1st November 2010. Essays, Quiz and Debate competitions were conducted for spreading the awareness among the staff. Prizes ere also given and certificates were awarded to the winners.

Vigilance Clearances

This is an important activity of the vigilance wing because it is required at the time of promotion, trainings abroad, deputation to other organizations/Department, obtaining passports etc. During the period 2796 officers/officials were granted vigilance clearances for various purposes.

Consultation with the Central Vigilance Commission

It is the nodal agency of the Government of India having jurisdiction over all the Ministries/Departments/

PSUs etc for vigilance related matters. Action against Government Officers/Officials are taken after following the due consultation process with the CVC. The vigilance wing of DOT coordinates with the CVC for the vigilance related matters of the Department of Telecommunications. During the current year 58 CVC complaints were received with an opening balance of 35. Out of the total 93 complaints 59 were disposed off, closing balance as on December 2010 was 34.

Anticipated Achievements for January-March, 2010

- Three (3) vigilance Training Courses each of five days duration are proposed to be conducted.
- Thirty three (33) vigilance clearances are proposed to be issued.

Statistical summary of vigilance activities during 2010-11

Sl. No.	Activities	Category	Actual
1.	No. of complaints handled during the period		210
2.	No. of officers charge sheeted for		30
	(a) Major penalty	GOs	21
		NGOs	2
	(b) Minor penalty	GOs	6
		NGOs	1
3.	No. of officers punished with MA/MI penalty		84
4.	No. of prosecution sanctions issued		–
		GOs	–
		NGOs	–
5.	No. of investigation reports examined and sent to CVC for advice (other than CVC cases)		25
6.	No. of CBI reports referred to CVC for advice.		–
7.	No. of officers in respect of whom Vigilance clearance issued		2796
8.	No. of cases (received from ACU of PMO) disposed off after investigations		–
9.	No. of appeal cases settled		16
		Group 'A'	–
		Group 'B'	–

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III. 6 Telecom Network Security

A need was felt in the year 2007 to distinctly address the issues of Communication Network Security at DOT (HQ) level, consequent to enhancement of FDI limit in Telecom sector from 49% to 74% and therefore a new wing, named Security was created in DOT (HQ).

Functions of Security TERM Wing

(i) Coordination and Administration of TERM (Telecom Enforcement Resource & Monitoring) Cells, formerly VTM (Vigilance & Telecom Monitoring) Cells.

(ii) Nodal unit for C-DOT, in DOT-All coordination, appointment of

a. Directors and above, signing of MOU, release of funds etc.

b. Issues relating to C-DoT.

(iii) Security Related National Projects.

- ***Centralized Monitoring System***

  Requirements for the Project on Centralized Monitoring System had been finalized after detailed deliberations among various agencies concerned. Proof of Concept has been demonstrated and R&D activities are ongoing for the project.

- ***Dedicated and Fully Secure Communication Network***

  Architecture and dimensioning of the network had been finalized, scale and size of the project are under deliberation. Phase-I of the dedicated network will cover the National Capital.

TERM Cells

Genesis of TERM Cells - With the increasing number of telecom service providers in the country, the Government felt the need for presence of Telegraph Authority in all the Licensed Service areas and large telecom districts of the country. With thegrowth of access service providers and ISPs, an increase in illegal/ clandestine telecom operations, was also observed. To tackle this, the Government created initially 4 Vigilance Telecom Monitoring cells (VTM) in 2004 at Delhi, Mumbai, Hyderabad and Chennai, 9 more VTM Cells were created during the year 2006 for the circles of Punjab, Rajasthan, Gujarat, Kerala, Karnataka, Maharashtra, Tamil Nadu, West Bengal and UP(E). 15 VTM Cells were subsequently added in January 2007 for Andhra Pradesh, Bihar, Madhya Pradesh, Haryana, UP(West), Andaman & Nicobar, Assam, Chhattisgarh, Jammu & Kashmir, Jharkhand, Himachal Pradesh, North East-I, North East-II, Orissa and Uttaranchal. 6 more VTM Cells were created in March, 2007 at Kolkata, Ahmedabad, Bangalore, Pune, Jaipur and Lucknow, taking the total number of VTM Cells to 34. Since formation of VTM Cells, many more functions have been assigned to the VTM Cells, and therefore the VTM Cells were renamed as TERM (Telecom Enforcement, Resource & Monitoring) Cells to reflect their entire gamut of functions.

Functions Assigned to TERM Cells

The TERM cells are functioning as the subordinate offices of DoT in field. These cells represent the Telegraph Authority and the Licensor and perform the following functions:

Monitoring Functions

- Coordination and monitoring among various network operators, telecom service providers in the field.
- Monitoring of network parameters.
- To ensure optimum call completion ratio of inter operator calls.
- Checking of the compliance by the licensee in respect of license conditions in general and any directions issued by the licensor in public interest.
- Checking of the compliance by the companies in respect of NOC issued by the DOT selling of the global calling cards , international SIM Cards etc.
- Checking of the compliance by the in respect of various companies who have registered by the DOT under OSP, IP-1 , IP-II etc. category.
- Subscriber Verification Audit to ascertain whether mobile service operators follow DoT guidelines for customer verification before providing connections.
- Matters related to national security.
- Disaster Management Taking over of network in the events of natural calamities or the other emergency situations.
- Grievance redress of subscribers in respect of deficiency by various operators.
- Perform such other functions as may be entrusted to it from time to time by the DoT in overall interest of the country and consumers.
- Inspection of LIS / LIM Capabilities of existing system in case of new Value Added Services offered by the Telecom Service Provider
- Checking of the EMF(Electro Magnetic Field) Radiation emitted by the BTS sites of telecom service providers and enforcement of the ICINRP parameters on the sites to keep EMF radiation under control.

Security Function

- Interface between Service Providers in the field and Security Agencies.
- Assistance to the various security agencies / LEAs in providing the information related to the customers, CDRs, exchange records etc.

- Interaction with the State police and other authorities on the issues related with the telecom like Subscriber verification, telecom sales, infrastructure, EMF radiation pollution etc.

Vigilance Functions

- Inspection / raid of illegal / clandestine grey telecom market activities in the field.
- Inspection of all licensed Telecom Service Providers i.e. UASL/CMTS/basic (Access Service Providers), NLDO (National long distance operator), ILDO (International Long distance operator), VSAT, MNPO (Mobile Number Portability operator), ISPs (Internet Service Providers), ITSPs etc.
- Curbing illegal activities in telecom services offered various licensees etc.
- Control over clandestine/illegal operation of telecom networks by vested interest having no license.
- To file FIR against the culprits, pursue the cases; issue notices indicating violation of conditions of various Acts in force from time to time.
- Analysis of call details records/exchange records / subscription/traffic data of various licensees.
- Technical arrangement for the lawful interception/monitoring of all communications passing through the licensee's network.
- To ascertain that the licensee is providing the services within the permitted Area. Enforcement of license conditions under Telecom and ISP Licenses.

Other Major Functions

- Service Testing of various Licensed Service Providers and checking Roll-Out obligation as per license conditions in all license service areas.
- Registration of OSPs and Telemarketers in all License Service Areas.
- Checking Mobile Spectrum Utilization in all Licensed Service Areas.
- Investigation of complaints received through MOCPG, Law Enforcement agencies, referred by Security TERM DOT HQ or complaint received directly by the TERM Cells in the field.
- Acceptance Testing of the mobile service providers and mobile Number Portability operator
- Maintenance, update of the Subscriber Database in the respective Licensed Service Area.
- Maintenance and update of the Cell Site / BTS registers of the respective licensed service area.

Notable Achievements

- Mobile subscriber CAF verification audit has been conducted for about 7 Million samples by TERM Cells in the field, which has resulted in enhanced compliance by Service Providers, from 60% to more than 85%. More than 3000 complaint / FIR has been lodged by the TERM cells or through Telecom service providers against the errant retailer / dealer/ customers. In subscriber CAF audit, a penalty of Rs. 700 Crore(Apprx.) has been imposed on the telecom service providers. Presence of TERM Cells in field and various CAF related functions carried out by them have increased the awareness of the

customers about the mobile service application documentation and have increased the consciousness & sense of responsibility among the retailers / dealers who are selling the SIM Cards.

- Service Coverage Testing of more than 6000 BTs belong to different Mobile Service Providers has been carried out by the TERM Cells and it has resulted in to the receipt of service fees of Rs. 6 Crore (Approx). TERM Cells have completed the Service testing of all new telecom service providers within stipulated time.

- TERM Cells played a major role in launch of Mobile Number Portability by carrying out the Acceptance Testing of the equipments of the Mobile Number Portability operator and carrying out the Call Flow and porting Process A/T for whole India in phased manner and coordinating with more than 400 telecom networks successfully. The MNP Service in India has been launched successfully on 20 Jan 2010 by Hon'ble Prime Minster of India in a function held at New Delhi.

- Keeping in view the effect of electromagnetic radiation on public health, DOT has prescribed norms for EMF radiation from Mobile Towers & limits thereof as per the internationally accepted standards. More than 1100 BTSs have been checked by the TERM Cell for measurement of EMF radiation since 16th November 2010. TERM cells are testing the radiation emitted by the BTSs in the licensed service areas under their jurisdiction in a phased manner..

- More than 500 inspections of various telecom service providers, IP-1, OSP etc. has been carried out by the TERM Cells. They have taken action wherever irregularities have been noticed.

- Due to decentralization of Registration for OSP & Telemarketing to TERM Cells, pendency has reduced substantially. A total number of 2700 (approx.) OSP and Telemarketers have been registered by the TERM Cells which has also resulted in the receipt of fees Rs. 27 Lakhs(approx). The OSP registration process has been made on line in which TERM Cells had a significant contribution testing the software and suggesting new features for making the software more effective. Now the applicant companies can apply through the ODT Website and can monitor the status of their application online.

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III. 7 Empowerment of Women

INTRODUCTION

In accordance with the strategic approach of the Government to achieve the goals of gender mainstreaming and gender justice laid down in the National Policy for Empowerment of Women, certain steps have been taken by the Department of Telecom and the Public Sector Enterprises under its administrative control.

The Department of Telecommunications is effectively implementing the guidelines/instructions of the Supreme Court on prevention of sexual harassment of women at work place in all its units. In pursuance of the orders of the apex court, it has setup a committee on the sexual harassment of women, headed by a woman. The steps taken for empowerment of women by various functional wings of the Department are given below:

BHARAT SANCHAR NIGAM LTD. (BSNL)

BSNL employs about 40,000 women at various levels. They are retained on promotion to the extent possible at the station where they are working. Wherever the spouse is also working, generally they are posted at the same station. Further, action has been taken to follow the Supreme Court guidelines on prevention of sexual harassment. To encourage and help women employees, crèches/schools/tailoring centers are being run/maintained by voluntary Telecom Women Organizations. 15% relaxation in marks is given for getting Book Award for girl students. There is a complaint committee at BSNL Corporate Office as well as Circle/SSA levels.

MAHANAGAR TELEPHONE NIGAM LTD. (MTNL)

There are 9084 women employees working at various levels in MTNL. Over 20% of total manpower is women employees.

Several steps have been taken towards furthering empowerment of woman employees. A few of those are enumerated below:

- Special care is taken in case of female employee working in night shift and they are provided with rest room and dropping facility after duty hours.
- In order to redress and prohibit sexual harassment at work place Committee for prevention of Sexual Harassment has been constituted at Unit level as well as in Corporate Office.
- The service conditions are uniform and there is no gender bias.
- Crèche facility has also been provided for woman employees with infants. Maternity leave rules are on par with those in Government of India.
- Special grant is being sanctioned to Telecom Women's Central Organisation at New Delhi and for MTNL Woman Welfare Association at Mumbai, which in turn provides vocational training to kith and kin of working as well as retired or deceased employees.

ITI LIMITED

ITI Limited, being a socially conscious Public Sector Undertaking, has from its inception been committed

to the concept of employees' Welfare. Due importance is given to the welfare of its women employees. There are 841 women employees as on October 31, 2010.

The major facilities being provided to the women employees are as follows:

- Separate lunchrooms in Canteens, restrooms and Crèches have been provided in the units.
- The company has comprehensive health care scheme providing medical treatment/reimbursement to the employees and their families. Hospitals have been set up in Bangalore, Naini, Mankapur and Rae Bareli Plants, by the company to provide medical facilities which emphasize women and child welfare.
- In the light of the Supreme Court Judgements on sexual harassment in the work place, the Standing Orders applicable to Non-Officers and Officers has been amended in most Units to incorporate the clause on sexual harassment and during the year 2004-05, CDA rules were amended accordingly.
- Complaints Committee formed in each Unit to inquire into complaints of sexual harassment made by any women employees in the Company.
- Care is taken to ensure that women employees are nominated for training programmes, which are need based.
- It is a matter of pride to the Company that many of its women employees have been selected for the Shram Devi Awards in the past.

CENTRE FOR DEVELOPMENT OF TELEMATICS (C-DOT)

C-DOT's management has always been sensitive to gender issues and has consistently worked towards creating organizational culture reflecting gender equality.

- Presently, about 31% of staff in C-DOT is women.
- In recognition of the excellent contributions made by our women employees in achieving the milestones, in 1999 a scheme was introduced to facilitate the women employees to have a two year lien on their employment with C-DOT, in case they are required to be away from C-DOT for a longer duration of time. All women employees who completed 5 years of service were eligible to avail this facility.
- C-DOT has also taken initiative to provide opportunities to technically qualified and talented women to work from home. In 1999, a scheme of External Engineers was introduced; wherein women engineers were recruited for specific time bound projects in C-DOT. These women were allowed to work on the project from home, and their compensation was admissible on achievement of pre-defined milestones of the project.

Existing Policies

- All female staff members are allowed to avail up to 135 days maternity leave for delivery and up to 270 days leave subsequent to that (inclusive of 135 days maternity leave). For miscarriage/ abortion, leave of a total of 45 days in the entire service is permissible.
- C-DOT offers accommodation and transport benefits to all its women employees with different options that maybe availed as per individual suitability. This ensures the safety and security of all women employees in the company.
- Career growth opportunities for women are available to women employees in C-DOT. In the last financial year, of the total employees promoted to higher grades, 40% of them were women. In management cadres about 30% are women.

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III. 8 Persons with Disabilities

INTRODUCTION

Department of Telecommunications appreciates the requirements of providing reservation to the physically challenged in appointments and various Government directives in this regard are duly followed by it.

It is worthwhile to mention that the Department of Telecom has recently acceded to the request in the light of recommendation of National Institute for the Visually Handicapped (NIVH) that the persons with Low Vision (LV) as defined in Section 2(u) of PWD Act 1995 may also be taken to discharge the functions and responsibilities required by IP and TAFS Officer".

CENTRE FOR DEVELOPMENT OF TELEMATICS (C-DOT)

C-D C-DOT follows guidelines issued by Government of India with respect to reservations in jobs for persons with disabilities. As in the past, adequate encouragement was given during the years 2010-11 also to differently enabled persons.

The C-DOT new R&D Complex at Delhi has all necessary facilities like exclusive elevators for differently enabled persons, ramps connecting the two levels of the working areas etc. theses facilities enable such persons to move freely from one wing to another of this intelligent R&D Complex.

BHARAT SANCHAR NIGAM LTD. (BSNL)

Various facilities for persons with disabilities which are being provided by BSNL are as under:

Visually blind persons are entitled for following concessions on their telephone:

- Rental rebate - 50% of normal rental.
- Advance rental - 50% of the normal advance rental and bi-monthly rental as applicable to normal subscriber.
- Registration - Admissible under Non-OYT Special Category.

The application for availing above concessions should be supported by a "Visually Blind Certificate" issued by the CMO/MS/Ophthalmic Surgeon of District level Government Hospital or above. The blind persons already having the facility of telephone can avail rental rebate on producing the requisite certificate and the concession will be effective from the date of change of category.

MAHANAGAR TELEPHONE NIGAM LTD. (MTNL)

Mahanagar Telephone Nigam Limited has always endeavored towards upliftment of social status of physically disable people by innovating and executing action plans falling under its realm. There are 220 persons with disabilities as on June 30, 2010.

Below mentioned steps have been taken by MTNL in fulfilling its social responsibility:-

- The provisions of reservation as per GOI Rules have been made in recruitment of officers in various streams.
- In order to provide them with livelihood, physically challenged people are allotted PCOs on priority basis and also the commission made to them is 22% as against 20% for others.
- Further, to avoid delay in allotment of PCOs mobile booths are being provided to them based on CDMA/GSM technology.

ITI LIMITED

ITI Limited, being a socially conscious Public Sector Undertaking, has from its inception been committed to the concept of employees' welfare. Due importance is given to the welfare of persons with disabilities. There are 146 physically challenged employees as on October 31, 2010. The facilities being provided to persons with disabilities are as follows:

- Physically challenged employees who are residing in the township are given special allowance at the rate of 5% of the basic pay subject to maximum of Rs.75/- per month.
- Those employees who are not residing in the Company's township but are utilizing Company's transport for commuting between residence and factory are given special allowance at the rate of 5% of basic pay subject to maximum of Rs.100/- per month.
- Physically challenged employees are permitted 10 minutes grace time to punch in and out at the commencement and closure of the shift respectively. They are allotted quarters on "Out of Turn" basis.
- As per the Government directive, ITI has been maintaining 3% (1% for OH, 1% for VH and 1% for HH) reservation for physically challenged in recruitment and the reservation in promotion has also been maintained wherever applicable.
- In case of physically challenged, the company has been relaxing 10 years in age in case of recruitment for Group C and D posts and 5 years in case of Group A and B posts. In case of candidates belonging to SC/ST/OBC, among them an additional relaxation in age by 5 years for SC/ST and 3 years for OBC is given for posts in Group A and B.
- The physically challenged employees are fully exempted from Professional Tax subject to production of Certificate from the Government Doctor.
- The physically challenged employees need not pay any application fee for applying to any job in the Company.

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III. 9 Citizen's Charter & Grievance Redressal Mechanism

OUR VISION

Evolution of a seamless networked society through Leadership, Excellence, Affordability and Diversity in telecom sector for enabling good governance.

OUR MISSION

We fulfil the vision through facilitating the Provisioning of world class telecommunications infrastructure and services making the Nation connected "anytime-anywhere" enabling rapid socio-economic development of the country.

OUR PROGRAMMES / GOALS / OBJECTIVES

The policies and programmes are guided by the basic goal of creating a world class telecom infrastructure in order to meet the requirements of IT based sector and needs of a modernizing economy on the least cost basis. Ensuring value for money to the consumers and easy and affordable access to basic telecom services to everyone and everywhere. The major objectives include:

- Affordable and effective communication facilities to all citizens.
- Provision of universal service to all uncovered areas, including rural areas.
- Building a modern and efficient telecommunications infrastructure to meet the convergence of telecom, IT and the media.
- Transformation of the telecommunications sector to a greater competitive environment providing equal opportunities and level playing field for all the players.
- Strengthening R&D efforts in the country.
- Achieving efficiency and transparency in spectrum management.
- Protecting the defence and security interests of the country.
- Enabling Indian telecom companies to become truly global players.

OUR CLIENTS

- Licencees operating/providing telecom services.
- Citizens/organizations seeking licenses.
- Citizens seeking grant and renewal of Wireless Telegraph equipment possession licences.
- Citizens/organizations seeking spectrum/allotment of frequencies and related matters.

- Citizens/organisations seeking permission for tower erection for Telecom services purposes.
- Citizens with grievances relating to telecom services not redressed in the normal course by their service providers.

OUR SERVICES

Department of Telecommunications is no more providing telecom. services directly to Indian citizens on its own. However, Telecom Services are licensed to be operated by Indian registered companies under Section 4 of the Indian Telegraph Act, 1885. The Telecom Services are being operated both by Private Sector companies and Public Sector Undertakings BSNL and MTNL. BSNL & MTNL are independent legal entities duly incorporated under Company's Act, 1956. TRAI (the Telecom Regulating Body) is regularly monitoring the Quality of Service for all operators. TRAI and other PSU's like BSNL and MTNL have their own Citizen Charter.

Telecom services have been recognized the world-over as an important tool for socio-economic development of a nation and hence telecom infrastructure is treated as a crucial factor to realize the socio-economic objectives of a country. Accordingly, Department of Telecom (DOT) is involved in

i) Formulating developmental policies for the accelerated growth of the telecommunication services in the country.

ii) Grant of licenses for various telecom services like Unified Access Service, Internet, VSAT service, NLD, ILD, PMRTS, Voice Mail/Audiotex/UMS, GMPLS, IPLC resale, etc.

iii) Registration for Infrastructure Providers (IP), Other Service Providers (OSP) and Telemarketers.

iv) The Department is also responsible for Radio Frequency Spectrum Management in the field of radio communication in close coordination with the international bodies.

v) It also enforces wireless regulatory measures by monitoring wireless transmission of all users in the country.

vi) International cooperation in matters connected with telecommunications including matters relating to all international bodies dealing with telecommunications such as International Telecommunication Union (ITU), its Radio Regulation Board (RRB), Radio Communication Sector (ITU-R), Telecommunication Standardization Sector (ITU-T), Development Sector (ITU-D), International Telecommunication Satellite Organization (INTELSAT), International Mobile Satellite Organization (INMARSAT), Asia Pacific Telecommunication (APT).

vii) Promotion of standardization, research and development in telecommunications.

viii) Promotion of private investment in Telecommunications.

ix) Financial assistance for the furtherance of research and study in telecommunications technology and for building up adequately trained manpower for telecom programme, including-

a. Assistance to institutions, assistance to scientific institutions and to universities for advanced scientific study and research; and

b. Grant of scholarships to students in educational institutions and other forms of financial aid to individuals including those going abroad for studies in the field of telecommunications.

x) Administration of laws with respect to any of the matters specified in following list, namely:-

a. The Indian Telegraph Act, 1885 (13 of 1885);

b. The Indian Wireless Telegraphy Act, 1933 (17 of 1933); and

c. The Telecom Regulatory Authority of India Act, 1997 (24 of 1997).

xi) Administration of Universal Service Obligation Fund for providing access to telegraph services to people in rural and remote areas at affordable and reasonable prices.

xii) Mobile Number Portability Services.

OUR EXPECTATIONS FROM CLIENTS

The Department of Telecom as a Licensor of Telecom Services under Indian Telegraph Act 1885 is fully conscious of the rights of users of Telecom Services as citizens of India. Accordingly the terms and conditions of licenses stipulate certain safeguards; as below; to protect the rights of the consumers of telecom services which Licensees are expected to abide :

- The Licensee shall ensure the Quality of Service (QoS) as prescribed by the Licensor or TRAI.
- Access Service Providers to whom the licenses have been issued are directed to provide emergency and public utility services such as police, fire, ambulance, railways/road/air - accident inquiry etc.
- It shall be the responsibility of the licensee to issue or cause to be issued bills to its subscribers for use of the service.
- Any dispute, with regard to the provision of service shall be a matter only between the aggrieved party and the licensee, who shall duly notify this to all before providing the service. And in no case the licensor shall bear any liability or responsibility in the matter. The licensee shall keep the licensor indemnified for all claims, cost, charges or damages arising out of disputes between the licensee and its subscriber(s).

1. The Department of Telecom as licensor of Telecom Services expects the citizens/clients to follow certain etiquettes for usages of mobile phones such as:

i. The mobile phone user should strictly adhere to the rules/regulations/orders/instructions as issued from time to time by the Government /Authorities in Schools, Colleges, Offices etc.

ii. In the public places, the mobile phone should be kept in switched off mode or in vibration or silent mode, as per the instructions on the sign boards displayed by the Authorities in hospital, airplanes, trains, buses, places of worship, cremation/burial ground, auditorium, cinema hall etc.

iii. Mobile phone should not be used while driving.

iv. In public places the mobile user should be considerate to people sitting or standing near him/ her. He/she can move away from the people so that they are not forced to listen to his/her personal/ business conversation.

v. Mobile phone should not be used to capture photographs of individuals without their knowledge and consent. It should not be used to take photographs in public places-deemed-private like swimming pools, gyms etc. Privacy of persons around the user of the camera phone should be respected.

vi. Ring tones should be set at low level and should not be annoying to the people around.

vii. The mobile phone user should not send request to the television operators for scrolling their private SMSs on the screen of televisions.

2. Citizens are expected not to indulge in usage of telephones/mobiles for undesirable, illegal activities.

3. Citizens are expected to first seek the redressal of their grievances relating to telecom services through Three Tier Grievances Redressal Mechanism established by their service providers and they are further expected to provide a clear statement of grievance indicating the background and officials/channels previously approached for redressal.

GRIEVANCES REDRESSAL MECHANISM

All the complainants are supposed to seek redressal of their grievances at first instance through **"Three Tier Institutionalized Grievances Redressal Mechanism"** of the concerned Service Provider; [the details thereof are available at www.trai.gov.in under service provider & Consumer group section] established by them under Telecom Consumer Protection and Redressal of Grievances Regulations, 2007 (3 of 2007) issued by TRAI. The three Tiers are:

- Call Centre of concerned Service Provider (Time limit: 3 days).
- Nodal Officer of concerned Service Provider and (Time limit: 10 days).
- Appellate Authority within the company of Service Provider (Time limit : 3 months).

The responsibility of redressal of grievances lies with the concerned organizations/ subordinate units/ PSUs/ administrative sections of the Ministry. However, DOT, without prejudice to the right of complainant to approach an appropriate court of law, acts as a facilitator for resolution of grievances so received.

The complainant after the lapse of above progressive time-limit may approach through following means to Public Grievance Cell of Department of Telecommunications (DOT), Sanchar Bhawan, 20, Ashoka Road, New Delhi-110 001 along with documentary evidence for non-redressal of his grievance at concerned Service Provider level:

By Post : Public Grievances Cell, Deptt. Of Telecom,Room No.518,Sanchar Bhawan,20,Ashoka Road,New Delhi 110001.

By hand : Information & Facilitation Counter, Sanchar Bhawan, 20, Ashoka Road, New Delhi-110001.

By Web Portal: www.pgportal.gov.in

- With an objective of speedy redressal, fast access and effective monitoring of grievances, DOT has implemented an integrated application system; based on Web technology (CPGRAMS) which primarily aims at submission of grievances by the Citizens from anywhere and any time (24 x 7) basis for instant and easy communication between DOT & Citizens.
- The system facilitates generation of unique registration number upon the online submission of grievances from aggrieved citizens (to DOT) through internet using any Browser Interface.
- The system provides the online facility to the citizen to monitor the progress of redressal process in respect of the grievance lodged by him.

INFORMATION AND FACILITATION

DOT has Information and Facilitation counter (IFC) located adjacent to Reception in front gate of Sanchar Bhawan, New Delhi-110001.

INFORMATION ABOUT RTI MATTERS

All the Public Sector Undertakings/Autonomous Bodies/Societies under the administrative control of this Department i.e BSNL, MTNL, ITI, TRAI, TDSAT and HTL are separate "Public Authorities" in terms of Sec. 2(h) of RTI Act, 05. They have their own websites and each of these Public Authorities has its own CPIO/APIO. For any information relating to these Authorities, application needs to be submitted to the concerned CPIO/APIO of these organisations only as per procedure detailed on their websites.

However any citizen of India seeking information relating to this Department may address his application to the concerned Central Public Information Officer (CPIO) of this department. The details relating to the CPIO's with work allotted to them and their Appellate authorities, Fees payment procedures etc are available at our web site under the Sub menu Right to information Act. Notwithstanding the above, RTI cell of DOT does take up the matters relating to the coordination required in the RTI requests devoid of name of designated CPIO's.

HEAD OF DEPARTMENT

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Our website: www.dot.gov.in

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IV. Telecom Regulatory Authority of India (TRAI)

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 January 9, 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 TRAI (Amendment) Act, 2000.

The mission of Telecom Regulatory Authority of India (TRAI) is to ensure that the interests of consumers are protected and at the same time to nurture conditions for growth of telecommunications, broadcasting and cable services in a manner and at a pace which will enable India to play a leading role in the emerging global information society.

Composition of the Authority

The present Composition of the Authority is as below:

Name	Designation	Date since holding the post
Dr. J.S. Sarma	Chairperson	14.05.2009
Shri R. Ashok	Member	30.09.2009
Prof. H.S. Jamadagni	Part-Time Member	19.03.2010

Recommendations on Spectrum Management and Licensing Framework dated 11th May, 2010

Telecom Regulatory Authority of India issued consultation paper on "Overall Spectrum Management, and Review of Licenses Terms & Conditions" dated 16th October 2009. Based on comments received in the consultation process and its own analysis, Telecom Regulatory Authority of India issued its recommendations on "Spectrum Management and Licensing Framework" on 11th May, 2010. In these Recommendations, the following issues have been dealt with:

- Spectrum Requirement and Availability;
- Licensing Related Issues;
- Spectrum Assignment and Pricing;
- Consolidation of Spectrum; and
- Spectrum Management;

Release of Recommendations on "Efficient Utilization of Numbering Resources"

The recommendations on "Efficient Utilization of Numbering Resources" were released on 20.08.2010. The recommendations propose integrated numbering scheme for fixed and mobile services which would

make available enough numbers to cater to expansion of existing services and introduction of new services for the next 30-40 years. This integrated numbering will also facilitate extension of number portability to fixed lines.

For making allocation of numbers more efficient, Telecom Regulatory Authority of India has recommended automation of the allocation process. This would help service providers in getting allocations online. Once the recommendations are accepted, Telecom Regulatory Authority of India proposes to go ahead with the work of preparation of detailed plan for migration to the integrated numbering scheme.

Recommendation on "National Broadband Plan" dated 8th December 2010

- Despite the known benefits of broadband, it is a matter of concern that India had just 10.30 million broadband connections in the country at the end of September 2010 as against the target of 20 million broadband subscribers by 2010, set by the Broadband Policy 2004.
- In order to spur broadband growth in the country, TRAI has sent the recommendations on "National Broadband Plan" to the Government on 8th December 2010.
- TRAI has recommended establishment of a National Broadband Network. This network will be an open access optical fibre network connecting all habitation with population of 500 and above. This Network will be established in two phases. The first phase covering all Cities, Urban areas and Gram Panchayats will be completed by the year 2012. Phase II will be the extension of the network to all the habitations having population more than 500, to be completed by the year 2013. This network will be established at a cost of about Rs. 66,000 crores. It will be financed by USO fund and the loan given/guaranteed by Central Government.
- A National Optical Fibre Agency (NOFA) will be set up to establish this broadband network. NOFA is proposed to be a 100% Central Government owned holding company. NOFA will establish the network in all the 63 cities covered under Jawahar Lal Nehru Urban Renewal Mission (JNURM).
- A State Optical Fibre Agency (SOFA) will be formed in every State with 51% equity held by National Optical Fibre Agency (NOFA) and 49% by the respective State Government. NOFA should be the holding company of all the SOFAs. All the SOFAs, under the overall guidance of NOFA will establish the networks and backhaul in the rural areas and in the urban areas other than those cities covered under Jawahar Lal Nehru Urban Renewal Mission (JNURM).

Telecommunication Mobile Number Portability (Second Amendment) Regulations, 2010 (05 Of 2010) dated 24th November, 2010

- The Telecom Regulatory Authority of India (TRAI) had issued the Telecommunication Mobile Number Portability Regulations, 2009 (8 of 2009) dated 23rd September, 2009 laying down the basic business process framework for implementation of mobile number portability in the country. Regulations 6,7,8,9,10,11,12 and 13 of these regulations were required to be implemented on 31st December, 2009.
- Due to the non-preparedness of the Telecom Service Providers, DOT further extended the timeframe

for implementation of MNP from time to time. Hence, the Telecommunication Mobile Number Portability (Second Amendment) Regulations, 2010 (05 of 2010) were issued.

- Further, on request of DOT regarding security reasons the timelines for Donor operator in the regulation 10 of the principal regulations has been modified from 24 hrs to 4 working days.

The Telecom Commercial Communications Customer Preference Regulations, 2010 dated 1st December, 2010

- Unsolicited Commercial Communications (UCC) are a major cause of disturbance and inconvenience for telecom users in recent times. These communications invade the privacy of individuals. In order to curb Unsolicited Commercial Communications, the Telecom Regulatory Authority of India (TRAI) notified the Telecom Unsolicited Commercial Communications Regulations, 2007 dated 5th June, 2007, which put in place a framework for controlling unsolicited commercial communications.

- Despite various measures taken by the TRAI for curbing Unsolicited Commercial Communications, dissatisfaction on this account among telecom customers continues. Although the number of unsolicited commercial voice calls has decreased to some extent, the number of unsolicited SMS has increased significantly causing inconvenience to telecom customers.

- In order to find a solution to this problem, TRAI initiated consultation process in May 2010. After extensive discussions with all stakeholders, TRAI issued "The Telecom Commercial Communications Customer Preference Regulations 2010" on 1st December 2010. These Regulations provide choice to the customer. The customer can choose 'fully blocked' category which is akin to the Do Not Call Registry or he can choose the 'partially blocked' category, in which case he will receive SMSs in the category/categories chosen by him. Customer registration will be effective within seven days of registration.

- As per the Regulations, the defaulting telemarketers will be liable to pay heavy penalties. The telemarketers are required to enter into an agreement with the service provider before they get telecom resources. The telemarketers are required to commit that the following amounts would be deducted from the security offered by them.

- First offence Rs. 25,000/-; Second offence, 75,000/-; Third offence Rs. 80,000/-; Fourth offence Rs.1,20,000/-; Fifth offence Rs. 1,50,000/-; and Sixth offence Rs.2,50,000/-.

- In addition to deduction of security, the telemarketer will be blacklisted on commission of the sixth offence. The telecom resources of the black listed telemarketer will be disconnected by all the service providers and will not be restored for a period of two years.

Consultation Paper on Quality of Service requirements for delivery of basic financial services using mobile phones dated 28th October 2010

The growth of telephone services as well as improved technology has opened the door for the mobile phone to be used as an instrument for banking operations. An Inter-Ministerial Group (IMG), constituted recently, made several recommendations for delivery of basic financial services using the mobile

telephone, besides suggestions regarding development of Quality of service and pricing of services. The IMG has prepared a framework for the delivery of basic financial services using mobile phones specifically focusing on the following broad shareable elements:

- "Know Your Customer (KYC)" norms, processes and actual data pertaining to enrolment of new customers for services under the proposed framework. The IMG also decided to consult the MHA while arriving at the shareable KYC requirements.
- A ubiquitous infrastructure component (including human resources involved) for "cash-in" and "cash-out" operations at the village / local level.
- An additional infrastructure component for facilitating management of large number of small-value accounts and micro transactions involved in the delivery of basic financial services.

The framework envisages creation of "Mobile linked No-Frills Accounts" by the Banks, which will have various transaction limits. The basic financial transactions on these accounts (cash deposit, credit customer's mobile linked no-frills account, cash withdrawal, peer to peer transfer & balance inquiry) can be executed through a mobile based PIN system using "Mobile Banking POS" or through biometric based "micro ATMs" of the BCs (or the sub-agents of BCs). The IMG has identified the different stakeholders in the framework and has defined the roles of each of these stakeholders. These stakeholders are Reserve Bank of India (RBI), Unique Identification Authority of India (UIDAI), National Payments Corporation of India (NPCI), Banks, Mobile Service Providers (MSPs), Department of Post (DoP), Citizen, Government and TRAI.

In order to initiate focused discussion on all the pertinent issues regarding quality of service parameters required to support financial transaction using mobile telephones TRAI had issued a consultation paper on "Quality of requirements for delivery of basic financial services using mobile phones" on 28th October 2010. The comments of the stakeholders on the consultation paper were sought by 8th December 2010 and counter comments by 15th December 2010.

Consultation Paper No. 57/2010 on "Issues relating to blocking of IMEI for lost /stolen mobile handsets" dated 2.11.2010

The mobile phone theft is a serious concern to the consumers, especially because of valuable personal data/information stored in it. Presently, there is no mechanism in place to block a mobile phone in case if it is lost. In the year 2004, TRAI had initiated a preliminary consultation process on the issue. However, at that time, a number of service providers were not having the capability to track/block the handset in their network. Therefore, the matter was not pursued further. In order to revisit this issue, TRAI had issued this consultation paper, which brings out various issues relating to blocking of mobile handset.

Consultation paper on "Encouraging Telecom Equipment Manufacturing in India"

The telecommunication sector is a major contributor towards the national economy. Growth in the number of subscribers has been considerable and is expected to reach 1 billion by 2014. This growth in turn attracts a large demand for telecom equipment and subscriber terminals. According to some reports, the telecom equipment market is over Rs 100,000 crores. However, the domestic telecom

equipment manufacturing segment has not been able to keep pace forcing the telecom operators to import most of the equipment required for their networks. Even the existing domestic manufacturing of telecom equipment in India utilises technology developed abroad resulting in the benefits of sales of such products accruing largely to foreign companies. To meet the country's demand as well as to be able to export, India has to create a synergetic telecom ecosystem and build globally competitive product companies across the telecom value chain.

To bring the issues relating to telecom manufacturing in India, TRAI issued a Consultation paper on Encouraging Telecom Equipment Manufacturing in the month of December 2010 for obtaining views of the stakeholders. The consultation paper takes up the following important issues for deliberations:

- Promoting R&D and creation of intellectual property.
- Promoting manufacture of telecom equipment in India.
- Manufacture of electronic components in India.

Consultation for Amendment to the Intelligent Network Services in Multi Operator Multi Service Scenario Regulations, 2006 (13 of 2006)

TRAI has released on 12.10.2010 a draft Amendment to the Intelligent Network Services in Multi Operator Multi Service Scenario Regulations, 2006 (13 of 2006) for the comments of the stakeholders. Draft amendment in IN regulations proposed that service providers who are already providing IN services should enter into agreement with all access providers within 90 days of the date of amendment and those service providers who start IN services at later date should enter into agreement within 90 days of start of the IN services.

Consultation Paper on 'Revenue sharing arrangement for intelligent network services'

Intelligent Network Services in Multi Operator Multi Service Scenario Regulations, 2006 (13 of 2006) was issued on 27th November, 2006.

In August 2008, TRAI recommended to the Deptt. of Telecommunications that long distance service providers may be allowed to access customers through calling cards. This was primarily meant to allow subscribers to get choice of carrier for long distance calls while keeping their access service provider same. These recommendations were accepted in August, 2009 and the licence conditions were appropriately modified. TRAI has also received request from some service providers to prescribe interconnection and commercial arrangement between service providers for calling card service.

The Consultation Paper on 'Revenue sharing arrangement for intelligent network services was issued on 3rd November, 2010 to seek the views of stakeholders to assist TRAI in arriving at a framework by which interconnecting service providers may be fairly compensated for IN services.

Review of measures to protect the interest of consumers in telecom sector

TRAI is currently reviewing the measures to protect interest of consumers. TRAI has initiated the process for review through issue of a Consultation Paper on "Review of measures to protect interest of consumers in Telecom Sector" on 2nd August, 2010 soliciting comments of various stakeholders.

Performance of service providers against the Quality of service standards laid down by TRAI

a) Basic Services, Cellular Mobile Services and Congestion Level of Point of Interconnections

TRAI monitors the performance of Basic and Cellular Mobile services against the benchmarks for various parameters laid down under quality of service regulations issued from time to time through quarterly performance monitoring report (PMR) received from service providers and monthly POI congestion reports. The analysis of PMR submitted by the service providers for the quarter ending 30th September 2010, indicates that the private cellular mobile service providers are generally complying with the benchmarks prescribed by TRAI for most of the quality of service parameters. However, some of the service providers are not meeting the benchmarks for some of the quality of service parameters. Non-compliance with the benchmarks is generally observed in respect of parameters such as Worst affected cells having more than 3% TCH call drop rate, Point of Interconnection (POI) Congestion, Metering and Billing Credibility-postpaid and Metering and Billing Credibility-prepaid, Accessibility of Call Centre/ Customer Care and Percentage of Calls answered by the operator (voice to voice) within 60 seconds. In the case of Basic Telephone Service (Wireline), the private service providers are mostly complying with the benchmarks for various quality of service parameters except for the parameter pertaining to Percentage of fault repaired within 3 days.

The Point of Interconnection congestion is monitored on monthly basis through reports received from service providers. The benchmark notified by TRAI in the QoS Regulations for the parameter is <0.5%. The POI Congestion Report analysis for the quarter June 2010 shows that the performance of the CMSPs with respect to the congestion on POIs has slightly improved in the month of June 2010 as compared with the performance in March 2010. As of June 2010, 77 POIs were having congestion above the benchmark of 0.5% as against 82 such POIs in June 2010.

b) Broadband Services

TRAI monitors the performance of Broadband service providers against the benchmarks provided by TRAI vide Regulation on Quality of Service of Broadband Service dated 6th October, 2006 through quarterly reports submitted by service providers. The analysis of PMR reveals that the Broadband service providers are generally complying with the benchmarks prescribed by TRAI for most of the quality of service parameters. However, some of the service providers are not meeting the benchmarks for some of the quality of service parameters. Non-compliance with the benchmarks is generally observed in respect of parameters such as Service Provisioning/Activation Time, Fault Repair/Restoration Time and No. of Intra network links having bandwidth utilization >90% during peak house (TCBH).

c) Internet Services

TRAI notified Regulation on Quality of Service of Dial-up And Leased Line Internet Access Service in December, 2001, fixing benchmarks for Internet Dial-up Access. As per the performance monitoring report (PMR) for the quarter ending September 2010, the Internet service providers are generally meeting the benchmarks of quality of service parameters.

Setting floor price for settlement in India of International Long distance minutes

One section of the service providers has represented to 'TRAI' for intervention in setting floor price for settlement in India of international long distance minutes originating from the Middle East without disturbing the local termination charges. TRAI has invited comments on 24.11.2010 from the stakeholders with a view to regulating the charges in the interest of Indian Service providers and subscribers.

Anticipated achievements for January to March 2011

- **Consultation paper on Issues related to Telecom Infrastructure Policy**

  Telecommunication infrastructure is the key to a healthy telecom services sector which in turn is important for rapid economic and social development of the country. Accordingly, it is of vital importance to the country that there be a comprehensive and forward looking telecommunications infrastructure policy which creates an enabling framework for development of the telecom industry. TRAI issued a pre-consultation paper on Telecom Towers and related issues on 5th February 2010 for obtaining views of the stakeholders. Based on the comments received from the stakeholders, TRAI proposes to issue a consultation paper on Issues related to Telecom Infrastructure Policy.

- **Consultation paper on Green Telecommunication**

  Contribution of telecom industry in carbon footprint is increasing. International organizations including ITU are emphasizing the need for the introduction of eco-friendly elements in all telecom and ICT-related equipments are services. To analyze the various issues and to seek the possibility of any course of, TRAI issued a pre-consultation paper on "Green Telecom" on 18th June, 2010 for obtaining views of the stakeholders. Based on the comments received from the stakeholders, TRAI proposes to issue a consultation paper on Green Telecommunication.

- **Allocation of Spectrum for Technologies such as DECT**

  Consultation Paper on "Allocation of Spectrum for Technologies such as DECT, to meet the Residential and Enterprises Infrastructures Telecommunications Requirement" is likely to be issued by March 2011.

- **Consultation Paper for frequency bands 1785-1805 MHz and 2010-2025 MHz**

  Recommendations were sought by DOT for the frequency bands 1785-1805 MHz and 2010-2025 MHz etc. TRAI is likely to issue consultation paper on the issue by March. 2011.

- **Release of Amendment to the IN Regulations**

- **Consultation Paper on comprehensive Review of IUC**

- **Release of Regulations on 'Revenue Sharing Arrangements for IN services**

- **Preparation of comprehensive publication on Telecom Sector in India**
- **Conducting a survey among telecom users regarding various issues on transparency in telecom tariff and other related issues**
- **Seminar on "Central lrlrEmergency Response" is to be organized in the month of March 2011**

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V. Telecom Disputes Settlements and Appellate Tribunal (TDSAT)

INTRODUCTION

The Telecom Regulatory Authority of India (TRAI) Act, 1997 (as amended) provides for the establishment of the TRAI and the Telecom Disputes Settlement and Appellate Tribunal (TDSAT) to regulate the telecommunication services, adjudicate disputes, dispose appeals and to protect the interests of service providers and consumers of the telecom sector, to promote and ensure orderly growth of the telecom sector and for matters connected therewith or incidental thereto.

The Telecom Disputes Settlement & Appellate Tribunal (TDSAT) was created in the year 2000 by the Central Government under the TRAI Act, 1997 to settle and adjudicate disputes involving licensor, service providers and a group of consumers on telecommunication services. In January, 2004 the jurisdiction of TDSAT was extended to include broadcasting and cable services besides telecommunication services. TDSAT exercises appellate jurisdiction over regulations, determinations, orders and directions of the TRAI. It also exercises original jurisdiction.

The jurisdiction of TDSAT is exclusive and its orders can be challenged before Supreme Court of India on points of law only. Statutory appeal does not lie against the interim orders of TDSAT. TDSAT is an expert body and comprises of a Chairperson and two Members. The Chairperson is a retired Judge of the Supreme Court of India while two Members are experts in the field of administration/telecommunications.

TDSAT is not bound by the provisions of Civil Procedure Code. It has formulated its own Procedure (TDSAT Procedure 2005) which is simple and is based on the principles of natural justice. Court fee for filing a petition, appeal and Misc. application before TDSAT is Rs. 5000/-, Rs. 10,000/- and Rs. 1,000/- respectively.

World over the disputes in telecom and broadcasting sector are resolved by the regulator or normal courts. However, in India the unique Institution in the form of TDSAT exists for speedy settlement and adjudication of disputes on telecom and broadcasting sector. As such, dispute resolution in India is outside the purview of the telecom regulator.

The number of cases in the Tribunal has been increasing every year since its establishment in May, 2000. The total number of cases filed before TDSAT in the year 2001 was 103, which increased to 491 in 2009. From 01.01.2010 to 01.10.2010, a total No. of 692 cases has been filed in TDSAT. The disposal of cases has kept pace with the filing and all efforts are made to ensure that there is speedy disposal. This is corroborated by the fact that till 01.10.2010, 3256 cases have been disposed off out of 3743 cases instituted during that period. A statement of cases filed, disposed off and pending since 2001 till 1st October, 2010 is enclosed.

TDSAT, since its inception, has delivered landmark judgments in the cases of Telecom as well as Broadcasting & Cable Sectors.

TDSAT has been organizing seminars in different parts of the country to bring awareness amongst various stakeholders including consumers about the dispute redressal mechanism in the Telecom, Broadcasting and Cable Sectors and to find ways and means to strengthen the grievance redressal system in these sectors. During the previous year i.e. 2009-10, the Tribunal had organized the Seminars at Lucknow, Indore, Agartala and Dehradun. The Tribunal has also organized seminars at Shimla, Raipur and Puducherry during this financial year and also proposes to organize more seminars in different parts of the country. The distinguished speakers including Hon'ble Judges of the Supreme Court, during various seminars organized by TDSAT, have commended the delivery system of TDSAT.

The TDSAT has also compiled an authoritative compendium of Telecom and Broadcasting laws consisting of the judgments of the Hon'ble Supreme Court and TDSAT and has made the same available in the form of a CD. This compendium is now used as reference manual for purposes of citation in TDSAT, Supreme Court and High Courts.

TDSAT has been imparting internship to law students from leading Law Institutes. During the year, 2010 till 30.09.2010, 25 students from various institutes have undergone internship in TDSAT.

The Tribunal has been levying ad-valorem rate of court fees on cases which are in the nature of recovery suits since 2006. As a result of this, the revenue receipts of the Government of India have increased. The Revenue receipt from April, 2010 to September, 2010 is Rs. 2.03 crore.

As sector Member of International Telecommunication Union (ITU), TDSAT has been participating in the international seminars, conferences and events organized by ITU and other international bodies.

TDSAT maintains its own website with all judgments and other activities of the Tribunal uploaded on it at www.tdsat.nic.in. TDSAT also interacts with stake holders, lawyers, consumers etc extending advice on various issues through email at tdsat1@yahoo.co.in. TDSAT has also developed an SMS Alert System for the purpose of informing the parties to the litigation about the daily cases listed before the Tribunal.

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VI. Audit Observations of C & AG

Audit Report No. 19 of 2010-11, union Government (Civil), (Performance Audit of Issue of Licences and Allocation of 2G Spectrum by DOT)

Department of Telecommunications

In the last two decades the telecom sector witnessed rapid transformation with the National Telecom Policy -94 setting the stage for opening up of the sector. With changes in the sector, cellular mobile services outgrew the fixed line services. Audit was taken up with the objectives of ascertaining as to:

- Whether the policy for issue of licence under the United Access Service (UAS) was implemented efficiently;
- Whether the UAS licences were issued and radio frequency spectrum was allocated in a fair transparent and efficient manner and
- Whether the potential for revenue generation to Government was optimally managed.

The major findings of the performance audit are as follows:

Gaps in Policy implementation

TRAI report recommending a road map for allocation of licences formed the basis for UAS policy approved by the Council of Ministers in October 2003. The implementation of UASL regime was to be carried out in two phases. Phase 1 was assigned for migration of already existing operators to the new regime. Phase 2 was for entry of new operators into the unified licensing regime with a nominal licence fee & spectrum being charged separately.

Audit examination revealed that the Department of telecom implemented only the first phase of the policy, overlooking the second phase. DOT extended the rates fixed for migration i.e. the rates fixed in 2001 to the new operators as well which was not in keeping with the recommendation of TRAI. Ministry of Finance was authorised by the Cabinet decision of 2003 to participate in the discussion for efficient allocation of spectrum and price fixation. DOT completely side-tracked the issue of pricing of spectrum by excluding it from the Terms of Reference (ToR) of the Group of Ministers (GoM) constituted in February 2006.

(Paragraph 3.1, 3.2, 3.3)

Telecom Commission was not consulted

After issuing 51 new licences under UAS regime and keeping 53 applications pending, DOT sought recommendation from TRAI in April 2007 on the issue of limiting the number of access providers in each service areas. TRAI, in its report of 28 August, 2007 recommended 'no cap' on the number of licences.

High Powered Telecom Commission which also includes part time members from the Ministry of Finance, Industry, IT and Planning Commission was not apprised of the TRAI recommendations of August 2007 and hence, depriving it of the opportunity to deliberate on the merits of the TRAI recommendations at the time of grant of 122 UAS licences in 2008.

Though TRAI had recommended 'no cap' on the number of service providers in any service area, DOT issued a Press Release on 24th September 2007 stating that applications would be accepted only upto 1.10.2007. DOT further advanced this date to restrict issuance of Letters of Intent (LoIs) only to applications received upto 25.09.2007.

Views and concerns of Ministry of Finance overruled

Ministry of Finance had questioned DOT about the sanctity of continuing with the price determined way back in 2001 even in 2007, without any indexation or current valuation and had sought a review of the matter. This advice of the Ministry of Finance was overlooked by DOT.

Hon'ble Prime Minister's suggestions were not followed

In Nov 2007 Hon'ble Prime Minister has expressed concern to Hon'ble MoC&IT regarding unprecedented number of applications received for fresh licenses in the backdrop of inadequate spectrum and suggested fair and transparent method of auction by revising the entry fee which was benchmarked on an old rate. In reply Hon'ble MoC&IT stated that the issue was being considered by TRAI and Telecom Commission and revision of entry fee was not recommended by them as the existing licence holders had already got spectrum upto 10 MHz without any spectrum charge and it would be unfair to auction spectrum to new applicants as the same will not given them a level playing field. Thus, Hon'ble MoC&IT had justified the allotment of spectrum in 2008 to new operators at old entry fee rates ignoring the advice of the Hon'ble Prime Minister.

(Paragraph 4.4)

First Come First Served (FCFS) policy was not followed

As per the First Come First Served (FCFS) policy internally adopted in DOT for allocation of spectrum, priority of applications is determined based on the date of receipt in the Central Registry. Audit found that DOT deviated from the FCFS policy in letter and spirit. Due to changing of the FCFS criteria, some licensees, who could proactively anticipate such procedural changes were ready with the Demand Drafts drawn on dates prior to the notification of cut off date by DOT and could avail the benefit of first right to allocation of spectrum, having jumped the queue.

(Paragraph 4.6)

Issue of license to ineligible applicants

Eighty five out of the 122 licences issued in 2008 were found to be issued to Companies which did not satisfy the basic eligibility conditions set by the DOT and had suppressed facts and by submitting fictitious documents for getting UAS licences and thereby access to spectrum.

(Paragraph 4.7.1)

Value of additional spectrum allotted to 13 existing operators beyond contracted quantities

Spectrum was allotted by DOT to the existing operators beyond the contracted limits without imposing

any upfront charge of such allotment. The value of spectrum held by 13 operators for 51 circles based on the 2001 rates worked out to Rs.2, 561 crore.

(Paragraph 4.10, 5.5)

Audit Report No. 9 of 2009-10, Union Government (commercial) (Compliance Audit Observations)

Bharat Sanchar Nigam Limited

Loss due to payment of advance income tax in excess of requirement

Bharat Sanchar Nigam Limited paid advance tax of Rs.529 crore in excess of actual requirement for the financial year 2006-07. This resulted in loss of interest of Rs.23.21 crore on the excess paid advance tax.

Para 5.1.1

Continuation of telecom facilities despite non-payment of dues

Secondary Switching Areas in four telecom circles of Bharat Sanchar Nigam Limited failed to discontinue telecom services to subscribers for non-payment of dues resulting in non-recovery of Rs.16.09 crore.

Para 5.1.2

Loss of subsidy

Failure of 17 Secondary Switching Areas under six telecom circles of Bharat Sanchar Nigam Limited to maintain fault free/functional Rural Household Direct Exchange Lines and Village Public Telephones led to loss of subsidy of Rs.15.42 crore for the period from October 2003 to September 2008.

Para 5.1.3

Non-realisation of compensation charges for damages to optical fibre cable and under ground cable by outside agencies

Failure of nine Secondary Switching Areas under five telecom circles of Bharat Sanchar Nigam Limited to realise compensation charges for damages to cables by outside agencies resulted in non-realisation of Rs.8.12 crore.

Para 5.1.4

Excess procurement of cables

Karnataka telecom circle failed to correctly assess the requirement of 50 pair cable, resulting in excess procurement leading to non utilisation of cable and idle investment of Rs.7.14 crore.

Para 5.1.5

Non-recovery of interest on delayed remittances to the Collection Account

Failure to realise penal interest for non-transferring of collection account balance to circle collection account on daily basis by the banks resulted in non-recovery of penal interest of Rs.3.34 crore in Andhra Pradesh and Rajasthan telecom circles of Bharat Sanchar Nigam Limited.

Para 5.1.6

Mahanagar Telephone Nigam Limited

Irregularities in global tender

MTNL failed to implement the policy formulated by Prime Minister's office for promoting indigenous manufacturing of telecom equipment. Further, the Company extended undue benefit of Rs.16.18 crore to the vendor by waiving penalty in contravention of terms and conditions of the tender.

Para 5.2.1

Non-issue of ILD licence by DOT

MTNL failed to submit an undertaking to DOT for clearing the outstanding dues towards frequency use and spectrum charges, resulting in non issue of ILD licence by DOT. This resulted in blocking of Rs.25 crore paid by the MTNL for obtaining the licence and consequent loss of interest of Rs.2.75 crore.

Para 5.2.2

Audit Report No. 10 of 2010-11, Union Government (commercial) Performance Audit of selected Public Sector Undertakings

Bharat Sanchar Nigam Limited

Functioning of Telecom maintenance regions

With a turnover of more than Rs. 35,812 crore and net profit of Rs.575 crore for the financial year 2008-09 Bharat Sanchar Nigam Limited is one of the largest telecom service providers in India. The Company maintains a large transmission network comprising optical fibre cables and microwave systems through which 602 districts and 5.6 lakh villages in the country are connected.

Telecom Maintenance Regions of BSNL are the divisions responsible for the maintenance of long distance transmission systems of the Company. The four maintenance regions viz., Eastern, Northern, Southern and Western control more than 19,100 route kilometers of optical fibre cable and microwave systems functioning in the country. With the entry of private service providers into the telecommunications sector all operators essentially require interconnection with BSNL network. Provisioning of Points of Interconnect (POIs) and monitoring the long distance traffic through these POIs for correct realisation of interconnection usage charges is also an important area of activity for the Maintenance Regions.

The major findings of the performance audit are:

- Microwave systems costing Rs. 36.84 crore were either used for a very short period or were not put to use at all rendering the investment unfruitful. This was partly due to commissioning of microwave systems in routes where more stable optical fibre systems were already in operation.
- Delay in commissioning of 'Lawful Interception and Monitoring' systems led to idling of investment of Rs. 5.84 crore besides delay in start of International Private Leased Line services.
- Delay in finalisation of tariffs for use of signaling through Stand Alone Signaling Transfer Point system deprived the BSNL of projected profit of Rs. 329.30 crore per annum.
- Records on receipt and issue of stores received against all 94 purchase orders released during 2004-05 to 2008-09 were not maintained in Eastern Telecom Region.

IT Audit on Enterprise Resource Planning (ERP) in Gujarat Circle (BSNL)

The major findings of the performance audit are:

Interface with the telephone revenue billing packages

It was observed that no interface was provided with the revenue billing packages. In the absence of interface, bank reconciliation of collection accounts is being done manually depriving Gujarat Telecom Circle of the advantages of efficient fund management.

Para 4.2.1.2

Customisation and mapping of rules on delegation of financial powers

Due to non-customization of ERP package to the requirements of the Company and mapping the business rules of the companycmpletely, no financial limit could be set for booking maintenance expenditure error.

Para 4.2.1.5

Monitoring of functioning of ERP

Following deficiencies were noticed due to lack of effective monitoring of the functioning of te ERP:-

(a) Delay in booking of capital expenditure to the tune of Rs.1.45 crore in Vadodara SSA.

(b) Wrong booking of ATD amount of Rs. 43.6 lakh which was shown in the system as Rs.20.07 lakh.

(c) No provision has been provided for charging of assets costing Rs. 5000/- or less. As such in respect of 792 cases the value of asset was capitalized.

Para 4.2.1.6

Data validation

Audit observed the following deficiencies in the functioning of ERP due to weak validation of data.

(a) As per existing rules the minimum subscription to GPF should be six per cent of the pay. However, it was noticed that the system was accepting subscriptions below six per cent of pay also.

(b) As per accepted accounting principles, depreciation of an asset should commence from date of its capitalisation. However, it was observed that date of capitalization and date of commencement of depreciation were different in many cases. Moreover, life of assets was not matched properly and in many cases it was shown as 999 years.

Para 4.2.1.7

Utilisation of ERP

Despite implementation of ERP it was observed that the Material Management Wing continued the traditional manual system in handling important activities like registration of purchase requisition from field nits, Notice Inviting Tender (NIT), Evaluation and Finalisation of Tender, Collection of Bank Guarantee and Security Deposits and processing for payment for goods delivered despite implementation of ERP.

Para 4.2.1.8

The Status of ATNs

S. No.	Year	Report No.	No. of paras/ PA on Reports which ATNs have been submitted to PAC after vetting by Audit	Details of the Paras/PA reports on which ATNs are pending 13/10/2010		
				No. of ATNs sent by the Ministry even for the first time	No. of ATNs sent but returned with observations and Audit is awaiting their resubmission by the Ministry	No. of ATNs which have been finally vetted by audit but have not been submitted by the Ministry to PAC
1	1996-97	6 of 1998	1	Nil	1	1
2	1998-99	6 of 2000	2	Nil	2	3
3	1999-00	6 of 2001	2	Nil	Nil	2
4	2000-01	6 of 2002	6	Nil	1	2
5	2002-03	2 of 2004	5	Nil	3	Nil
6	2003-04	2 of 2005	1	Nil	1	Nil
7	2004-05	9 of 2006 (NTR)	14	Nil	3	Nil
		2 of 2007** (C-DOT)	1	Nil	1	Nil
8	2005-06	2 of 2007 (Civil)	1	Nil	Nil	Nil
9	2006-07	CA 1 of 2008	3	Nil	1	Nil
		PA 1 of 2008	27	Nil	Nil	Nil
10	2008-09	1 of 2008 ##	Nil	Nil	Nil	Nil
	Total		**63**	**Nil**	**12**	**7**

*** 17 Para of this report has been sent to Audit for vetting remarks.*

1 new para added from this Report and this is also pending with audit for vetting remarks.

Total pending paras as on 10/01/2011=37

ATNs on all the 14 paras of 14th Report of 15th Lok Sabha have been submitted to PAC after due vetting by Audit.

Achievement in reduction of pending ATNs on Audit Paras:- 54.54% achieved upto October 2010 and a further reduction of 50% i.e. total reduction of 78% in pending ATNs is anticipated.

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VII. Centre for Development of Telematics

INTRODUCTION

Centre for Development of Telematics (C-DOT) is the telecom research and development centre of the Government of India under administrative control of the Department of Telecommunications.

C-DOT develops total telecom solutions, technologies and applications for the fixed-line, mobile and packet-based converged networks and services. C-DOT has also developed technologies which are intensively based on Software and are useful to the service providers for provisioning of services, as also for operations and management of networks and services. C-DOT technologies have a significant presence in the Indian telecom network directly as well as through its licensees. C-DOT's recent focus has been on development and deployment of Next Generation Networks, cost-effective rural wireless solutions, software based systems, optical and satellite transport and access technologies and solutions required for strategic sectors.

C-DOT's product portfolio includes fixed line PSTN systems, Advanced Intelligent Network solutions, Access Network products, Synchronous Digital Hierarchy (SDH) and Wavelength Division Multiplexing (WDM) systems, Satellite Communication systems, Network Management Systems, Operation Support Systems and Rural Wireless Access and Broadband Solutions based on Cognitive Radio, SDR based GSM systems. C-DOT continues to support the legacy systems deployed in the field.

ACHIEVEMENTS DURING FY 2010-11

The major technology schemes pursued during the FY 2010-11 and the accomplishments made thereof during April-December'2010 and achievements anticipated for the period January-March 2011 are as follows.

Communication and security research and monitoring

The scheme focuses on research, development, trials and progressive scaling up of a Central Monitoring System (CMS). The system facilitates call interception, monitoring and analysis of target subscribers' data and social networking patterns in a secured, end-to-end work-flow, as per the requirements of Law Enforcement Agencies (LEA) to address the security threats and unlawful activities by anti-social elements, misusing the nation's communication network.

The software release for voice interception and GPRS (for MTNL Delhi) has been stabilized in the lab and validated. R&D datacenter being readied for field setup for the deployment of voice interception monitoring and analysis for MTNL Delhi and the requisite infrastructure for field deployment are being procured. The technology readiness is planned in phases and towards end of the fourth quarter of the financial year, pilot deployment at site is planned.

Technologies for Northeast Region (NER)

Northeast region has special requirements, not only because of its topology and terrain compared to the rest of the country, but also because of the demography of a scattered population over the region.

The technologies chosen for effecting improvement in the Telecom Infrastructure and facilities in the NER are VoIP (Voice-over-IP a packet technology) including migration of fixed-line switching system to packet technology, Broadband services over wire-line, optical and wireless.

During the period April-Dec., 2010, FTTH (Fibre-to-the-Home) services using C-DOT NGN solution made operational in seven cities of country and further FTTH services have also been tested at more than 50 sites, which are ready for commercial launch. C-DOT MAX technology migration to packet technology successfully field tried at 3-sites and the fixed-line exchanges (MAX technology) migrated to VoIP technology. Broadband services over WiFi field tried at Nuh in Haryana, Ajmer in Rajsthan and broadband over copper media field tried in North-East. The technology approvals are expected during Jan.-Mar., 2011 for these technologies for pan India deployment.

Hon'ble Minister of State for Communications & IT Shri Sachin Pilot launching FTTH service

Rural technologies

Considering that rural population of India comprises 70% of the total population, the availability of affordable communication facilities plays a vital role in uplifting the rural economy. Accordingly, this scheme focuses on research and development programs on Shared GSM Radio Access Node (SG-RAN) - to share active infrastructure of a Cellular network based on GSM technology which will help in reducing

the CAPEX & OPEX cost of operator; and provisioning of VoIP capability in C-DOT Broadband wireless access technology to provide affordable broadband end-to-end VoIP services in rural India and also meet the backhauling requirements.

During the period April-December 2010, SG RAN system has been installed in the field at Ernakulum for field trial, which is currently in-progress. VoIP enabled rural broadband access node system made ready with cognitive radio and repeater mode functions for field trial. Development also continued in other rural technology projects, namely, enhanced active infrastructure sharing and Data Rural Application Exchange (D-RAX). During the period January-March 2011, the field trial is expected to be completed for SG-RAN technology as well as VoIP based rural access node with cognitive radio and repeater mode functionalities.

Broadband technologies

The scheme aims at research and development on packet-based broadband technology for access and transport on various transmission media including optical, wireless, copper, etc.

During the year, a project deliverables undertaken include MOES (Multi-port Optical Enterprise Solution), technologies for terabit router, etc.

System integration and testing completed for the two different types of modules of MOES, namely, Customer Premises Equipment (CPE) having multiple types of user interfaces, and Multi-port Terminal (MT) to serve many such CPEs to minimize network side connectivity and reduce fibre usage in the field. Feasibility study and analysis completed for evolving existing gigabit router design to terabit capacity. During the period January-March, 2011, the activities planned to continue include, MOES validation and experimental / prototype implementation for terabit router enabling technologies.

Strategic and enterprise solutions

The scheme aims at development of strategic solutions for Defence sector and software intensive applications for enterprise solutions. These solutions, catering to the requirements of strategic and enterprise segments will be an important source of revenue for C-DOT. The major accomplishments made during the period April-December, 2010 include C-DOT developed network elements' customization / enhancements for Secure and Dedicated Communication Network (SDCN), setting-up of SDCN at one site in Delhi with installation of C-DOT softswitch and DSLAM (Digital Subscriber Line Access Module), secured VoIP CPE prototype demonstrating basic functionality C-DOT data clearing house (CLH) commercial operation ongoing and design & development of Customized Service Management Platform (CSMP). The activities will also continue in the next three months' period that is January-March 2011.

Enhancements/new features/upgradations/adaptations/technical support for developed technologies

This is an ongoing technology upgradation activity catering to component obsolescence, feature enhancements and adaptation for new interfaces etc. These technologies include RAX (Rural Automatic Exchange), AN-RAX and MAX (Main Automatic Exchange) switches, Call Interception System, Network Management System (NMS), Clearing House application (CLH), Intelligent Networks system (IN), etc.

Basic research on telecom networks and enabling technologies/study/pilot projects

Exploratory Study projects had been under taken during the year related to Dynamic Spectrum Allocation (DSA), Long Term Evolution (LTE), One Number PoC, etc.

Campus

The drawings for the construction of hostel and dwelling units, which had already been prepared, were submitted for their statutory approval. The clearance has been obtained from DDA and MCD forwarded to other agencies, namely, Delhi Urban Art Commission (DUAC) and Fire Office for their approval.

C-DOT Alcatel-Lucent Research Centre (CARC)

It is a Cabinet approved Joint Venture program to conduct research and development in wireless Broadband and supporting technologies and support activities are ongoing for the developed technologies and development of 3G femtocell for Alcatel-Lucent, under contracted R&D services.

Business Promotion Activities and other accomplishments

During the period MoUs signed with M/s BEL bidding for BSNL tender and ASCON project of Indian Army on unified NMS to provide technology support. Besides, C-DOT also participated in the various exhibitions and conferences to promote its technologies.

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VIII. Public Sector Undertakings

VIII. 1 Bharat Sanchar Nigam Limited

ROLE AND FUNCTIONS

BHARAT SANCHAR NIGAM LIMITED (BSNL) was formed on 1st October 2000 by corporatisation of the erstwhile Department of Telecom Operation & Department of Telecom Services. The company has taken over the erstwhile functions of the Department of Telecom in respect of provision of telecom services across the length and breadth of the country excluding Delhi and Mumbai. BSNL has one of large base of skilled work force of around 3.0 lakh as on December 31, 2010. BSNL is a 100% Government of India owned Public Sector Undertaking.

- BSNL is a technology-oriented company and provides all types of telecom services namely telephone services on landline, WLL and mobile, Broadband, Internet, leased circuits and long distance telecom Service.
- The company has also been in the forefront of technology with 100% digital new technology switching network. BSNL nation-wide telecom network covers all District Headquarters, Sub-Divisional Headquarters, Tehsil headquarters and almost all the Block Headquarters.
- Telecommunications is a basic infrastructure along with power and transportation and is thus recognized as the means for accelerating the economic growth in all the regions including remote and inaccessible areas in the country. Telecom in the modern world is expected to usher a concept of global economy and single world market place. BSNL telecom network, therefore, is part of modern global network, providing access to countries around the world for transporting information in the form of voice and data.

HIGHLIGHTS of 2010-11

- Bharat Sanchar Nigam Ltd. (BSNL) runs the telecom services all over the country, except Delhi and Mumbai, through 24 Telecom Circles and 2 Metro Districts of Chennai & Kolkatta.
- BSNL is the largest Public Sector Telecom service provider in the country having 1123.59 lakh customers as on December 31,2010. During 2010-11, it has added 150.78 lakh customers.
- As on March 31,2010 , BSNL had 38,461 wired line telephone exchanges with equipped capacity 458.35 lakh lines and customers base 278.31 lakh. The wired line status as on December 31,2010 is 38,141 telephone exchanges with equipped capacity of 449.90 lakh lines and 256.49 lakh connections.
- BSNL provides Mobile service in its network. It had 633.05 lakh Mobile connections as on March 31,2010. During 2010-11, it has added 179.30 lakh mobile connections raising the Mobile customer base to 812.35 lakh upto December 31, 2010.
- BSNL provides WLL telephones service in its network. There were 61.45 lakh WLL connections as on March 31,2010. As on December 31,2010 there are 54.75 lakh WLL Connection in BSNL network.

- BSNL provides high speed Broadband (DSL) services and has 53.76 Lakh Broadband connections up to March 31,2010. During 2010-11, it has added 14.33 lakh broadband connections raising the broadband connections to 68.09 Lakh up to December 31, 2010.
- BSNL is an Internet Service Provider (ISP) and provides a full range of Internet services for which it has established National Internet Backbone (NIB). As on March 31,2010, BSNL had provided 38.61 lakh Internet connections. BSNL provided 37.12 lakh internet connections upto December 31, 2010.
- The total number of rural DELs as on March 31, 2010 was 350.23 lakh (i.e. about 36.00% of total DELs). During 2010-11 (upto December 31,2010), BSNL added 46.07 lakh rural DELs raising the rural DELs to 396.30 lakh (i.e. about 35.27 % of total DELs).
- BSNL has provided Village Public Telephones (VPTs) in 5.66 lakh villages, up to March 31,2010, out of 5.94 lakh villages in the country as per census 2001. During 2010-11, it has covered 4,167 villages increasing the coverage to 5.70 lakh villages upto December 31, 2010.

FINANCIAL PERFORMANCE

The assets and liabilities of the erstwhile DTS/ DTO stand transferred to Bharat Sanchar Nigam Limited w.e.f. 1st October 2000. The assets (fixed assets, CWIP, Debtors and Inventory etc.) taken over by BSNL as on 1st October, 2000 have been valued at Rs. 63,392 crore in lieu of the capital structure which consists of equity of Rs. 5,000 Crore, Rs. 7,500 crore Preference equity, Rs. 7,500 crore Government loan, Rs. 3,056 crore, loan from MTNL and surplus is Rs. 40,336 crore as capital reserve.

BSNL has earned total revenue of Rs. 32045 crore in the financial year 2009-10, despite intense competition and sharp decline in ARPU the company has loss after tax of Rs. 1823 crore. The Net Worth of the company has also decline by Rs.1888 crore during the year and the net worth at the end of the year is Rs. 86746 crore.

Achievements during 2010-11

S. No.	Parameter	Unit	Target for the year 2010-11	Achievement (upto December 31, 2010)	Status as on December 31, 2010
1	Mobile Connections	Lakh Nos.	200.00	179.30	812.35
2	Broadband Connections	Lakh Nos.	75.00	25.26	91.19
3	Wireline + WLL Connection	Lakh Nos.	(-) 12.00	-28.52	311.24

INTELLIGENT NETWORK

- With the commissioning of 5 new technology IN Platforms (4 r General-Purpose and 1 Mass Calling), IN Services are available throughout the country. Various IN services being offered by BSNL are ITC & Call Now (Prepaid Calling Cards), ACC (Account Card Calling), FPH (Free Phone), UAN (Universal Access Number), PRC (Premium Rate Calling), Voice VPN (Virtual Private Network), UPN (Universal Personal Number) & Tele-voting & Fixed line Pre-Paid (FLPP) Service.

- Tele-voting service is provided by BSNL's Mass Calling IN platform at Hyderabad to programs such as 'Indian Idol', "Kaun Banega Crorepati" (KBC)", "Sa re gama" etc.
- Fixed Line Pre-Paid (FLPP) telephony service for PCOs is available.
- FLPP Pre-paid over Post-paid service is available on telephone connections.
- Combined Voice VPN including BSNL landline, BSNL CellOne & MTNL landline is available.
- BSNL has signed an interoperability agreement for making available BSNL's Toll and UAN service through network of almost all the private operators.
- Online sale of Pre-paid cards of IN services is available.

COMPUTERIZATION & INFORMATION TECHNOLOGY

CDR Project

CDR based convergent billing and customer care system is going to replace all the existing systems of Commercial, TRA (Telecom Revenue Accounting), FRS (Fault Repair Service) and DQ (Directory Enquiry) in respect of Landline / Broadband.

The project is not simply a replacement of the existing systems, but it is much more than that. The CDR Project has Centralized Billing and Accounting System, CRM, Web based capabilities for Self Care by customers, Revenue Assurance and Fraud Management System (FMS), Provisioning in various technology switches, Inventory, Directory Enquiry, Enterprise Reporting etc. for BSNL. Zonal high end IVRS system co-terminus with Data Centers are also part of CDR Project for various customer related applications/services like Call Centers.

Internet Data Centres (IDC)

BSNL is in the process to set up and operate Internet Data Centers (IDCs) in partnership with the Data Center Service Providers (DCSP) on revenue share basis, wherein all CAPEX on Hardware, Software and Data Center environmental work including air-conditioning be borne by the bidder in the BSNL provided covered space. BSNL shall only provide EA set & Electrical power to DCSP.

Once the IDCs are operational, BSNL can offer a wide range of services like shared hosting, dedicated hosting, Co-location services, Software as a service, Server as a service, Storage as a service, Managed firewall & other security services, Disaster Recovery services and many more depending on the SME requirement.

Customer can purchase the server hardware, rack space, bandwidth and network equipment. In addition, customer get a secure place to physically house equipment-a secured cage, cabinet or room with regulated power, dedicated Internet connection, security, and fire detection/suppression.

Milestones for 2010-11

CDR Project

CDR project rollout is under progress. All the 4 Data Centers are up and running. 242 SSAs out of total 333 SSAs have migrated to CDR System. 305 SSAs are targeted to be completed by 31st March 2011.

Setting up of IDC

PO has been placed for setting up of Internet Data Centers (IDCs) on revenue sharing basis at 6 locations out of 11 locations of different Circles / Metro Districts of BSNL. APO/PO is in the process for the 4 locations.

Call Center for PSTN (Landline and Broadband)

To bring in standardization and streamlining the call center operations for PSTN (Landline and Broadband), fresh NIT No. MM/IT-CFA/082010/000394 dated 10th August 2010 has been issued by BSNL CO on 10th August 2010. Tender is under evaluation.

Zonal Bill Printing

Tender for Zonal Bill Printing has been floated. Print facilities to be set up in all the four zones at New Delhi, Kolkata, Chennai and Pune. Tender is under finalization.

RURAL TELEPHONY

Village Public Telephones [VPTs]

- BSNL has covered 5,70,127 villages as per census 2001 with VPT facility in the country up to December 31,2010 out of the 5,93,601 villages.
- BSNL has entered into agreement with USOF, DOT for provision of VPTs in 62,302 (Revised) undisputed, undisturbed, accessible and inhabited villages having population more than 100 as per Census 1991 in the country. Out of 62,302 Villages awarded to BSNL as per USO tender, 61,985 Villages have been covered with with VPT facility up to December 31, 2010 total 327 VPTs have been provided during 2010-11 (up to December'2010). Remaining VPTs are likely to be provided by September' 2011.
- BSNL has entered into an agreement with USOF, DOT for provisioning of VPT facility in 62,443 newly identified uncovered Inhabited villages of Census 2001. Out of awarded 62,443 villages, BSNL has covered 42,358 villages with VPT facility till December'2010.Total 3,401 VPTs have been provided during 2010-11 (up to December' 2010). Remaining VPTs are likely to be provided by Feb. 2012.

Rural Community Phones (RCPs)

BSNL has entered into an agreement in September 2004 with USOF, DOT to provide RCP facility in 24,822 villages having population more than 2,000 as per census 1991 where there is no public telephone facility other than VPT. The agreement was subsequently revised by USOF,DOT to 21,958 villages for provisioning of RCPs BSNL has already provided 21,958 RCPs by the end of Feb.2009.

Replacement of MARR VPTs

BSNL had signed agreement with USOF, DOT for replacement of 185,121 number (revised from earlier allotted 1,86,872) of VPTs which were earlier working on Multi Access Radio Relay (MARR) technology.

A total number of 184,648 MARR VPTs have been replaced upto December 31,2010 Total 127 MARR have been replaced during 2010-11 (up to December' 2010). Remaining MARRs are likely to be replaced by March'2011.

TELECOM FACTORIES

BSNL Telecom Factories located at Kolkata, Gopalpur, Kharagpur, Jabalpur, Bhillai, Richhai and Mumbai are in-house manufacturing units of the company. They are presently engaged in production of Pay Phones, Mini Pillars, CT Box, DP Box, Line Jack Unit, OFC Accessories, FDMS, Towers, SS Drop wire, Joining Kits, DDF, SIM Cards etc. In the changed telecom scenario, it is the endeavor of the Telecom Factories to venture into new technology areas and support BSNL as manufacturing-cum-service support organization. Amidst all constraints posed by declining demand of conventional products, decreasing work force, TFs have supplied telecom items worth Rs.199.51 crore including 2232 Nos. of towers during 2010-11 (upto December 31, 2010). All the seven Telecom Factories are now ISO 9001:2000 certified.

Factories are engaged in repairing activities through Service Support Centers (SSCs) at Kolkata, Lucknow, Mumbai, Jabalpur, Bhillai, Jaipur, Bangalore and Vijayawada for repair of C-DOT Cards and other products of factories.

INTERNATIONAL RELATIONS

Actual achievements during the period i.e. April- Dec' 2010

- A total of 99 BSNL officers were deputed abroad during the period April -Dec 2010 for various events with details as under:
- 8 officers were deputed abroad for different technological training programmes in order to upgrade the knowledge and skill of officers working in BSNL.
- 20 officers were deputed abroad for testing and validation of equipment supplied by the vendors to BSNL at the vendor's premises / laboratory.
- 71 officers were deputed for attending exhibitions / meetings / conference / business visits to have first hand information on latest developments taking place in telecommunication and delivery ofInternational training under CTO programmes.

Training

BSNL has 41 Telecom Training Centres countrywide comprising of three Apex level Training namely:

- Advanced Level Telecom Training Centres (ALTTC), Ghaziabad.
- Bharat Ratna Bhim Rao Ambedkar Institute of Telecom Training (BRBRAITT), Jabalpur.
- National Academy of Telecom Finance & Management (NATFM) Hyderabad and

In addition there are 15 RTTCs & 23 CTTCs / DTTCs spread all over the country to the training needs of its employees across the countries. During the current year (April-Dec 2010), 60078 no of personnel have been imparted training another around 20000 no of personal are anticipated to be trained during Jan-Mar 2011.

DEVELOPMENT OF TELECOMMUNICATION FACILITIES IN SELECTED AREAS

Special Component Plans: Annual Plan of BSNL pays special emphasis on accelerated growth of telecommunication facilities under Special Component Plans in (1) North Eastern Region and (2) Tribal Sub-plan in Tribal Areas.

Network Status of NE Region States: The status of telecom facilities as on December 31, 2010 in each of the states of North East Region is shown in the following table:

Sl. No.	Name of State	Telephone Exchange	Total Capacity (lines)	Total DELs (Nos.)	Waiting List (Wireline)	VPTs (As per census 2001)
1	Assam	604	680,100	255,182	205	24,032
(2a)	Meghalaya	129	88,192	46,367	0	3,700
(2b)	Mizoram	102	74,400	46,772	0	704
(2c)	Tripura	135	123,568	59,860	0	858
	NE-1	366	286,160	152,999	0	5,262
(3a)	Arunachal Pradesh	107	87,768	48,903	0	1,752
(3b)	Manipur	53	54,964	29,862	0	2,082
(3C)	Nagaland	62	61,036	45,621	0	1,261
	NE-2	222	203,768	124,386	0	5,095
4	Sikkim	47	55,228	15,298	0	459
	NE Region	**1,239**	**1,225,256**	**547,865**	**205**	**34,848**

Development Status: Target and achievement during the year 2010-11 for the North East Region are as follows:-

Item	2010-11	
	Target (As per MOU)	Achievements Upto 31.12.2010
Net Switching Capacity (Lines) (Wired +WLL+CMTS)	6,50,366	1,63,857
DELs (Nos.)		
(i) Fixed	64,527	-98,886
(ii) Mobile	11,05,000	4,88,420
VPTs (Nos.) as per census 2001	2,477	415
Broadband Capacity (ports)	40,367	16,388
Broadband Connections (Nos.)	79,185	26,194

Tele-density: Status of telephone connections in N-E Region and the tele-density State/Circle- wise as on December 31,2010 are given in the following table:

Name of State	Telephone connection of BSNL	Teledensity due to BSNL's phones	Teledensity by All Operators	% Market share of BSNL
Assam	1,623,735	5.33	35.95	14.84
Meghalaya	171,478	6.57		
Mizoram	163,902	16.38		
Tripura	401,996	11.16		
NE-1	**737,346**	**10.22**		
Arunachal Pradesh	334,151	27.03	50.99	24.03
Manipur	211,104	8.65		
Nagaland	325,778	14.54		
NE-2	**871,033**	**14.72**		
Sikkim	117,886	19.34	–	–
Total NE Region	**3,350,000**	**7.58**	**–**	**–**

Tribal Sub Plan

The Tribal Sub Plan (TSP) is a part of the Annual Plan for providing telecom facilities in the tribal areas. For a balance and faster development of telecom facilities in tribal areas, these areas are treated as special focus areas. The main objectives of the Tribal Sub Plan areas are (i) to provide the telephone facility on demand in tribal areas (ii) to provide NSD facility to all exchanges in tribal areas and (iii) to provide public telephone in all tribal villages.

Tribal areas fall in the States of Andaman & Nicobar, Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Madhya Pradesh, NE-I, NE-II, Orissa, Rajasthan, Tamil Nadu, Uttaranchal, U.P (East) & W. Bengal.

Targets and achievements for the year 2010-11 under Tribal-sub-plan (TSP) are as follows:-

Sl. No.	Items	2010-11	
		Target	Achievement during 2010-11 (upto December 31, 2010)
1.	Telephone exchanges (Nos.)	12	-10
2.	Switching Capacity (in lakh lines)	23.90	6.43
3.	DELs (in lakh Nos)	15.85	5.84
4	OFC (RKms)	2,388	2,240

WELFARE MEASURES/FACILITIES UNDERTAKEN BY BSNL

During the year 2010-11, it has allocated Rs. 12 crores on various Welfare programmes for the year 2010-11. Grants to the tune of Rs.6.34 crores approx. has already been released.

BSNL is running various welfare programmes for its employees and their family members as part of BSNL's Welfare measures. Details are given as under:-

- Grants of Scholarship to the wards of BSNL employees.
- Grants of Book Award & Incentive to school going children of the BSNL employees.
- Immediate financial assistance of Rs.15,000 to the family of BSNL employees who die in harness basic pay has been removed in the 9th BSNL Welfare Board meeting held on 4th May,2010.
- Financial assistance of up to Rs.25,000 in case of serious illness or major surgical operations.
- Financial assistance to victims of natural calamities/communal riots/terrorist attacks has been increased from Rs 3000/- to Rs.5000/- in the 9th BSNL Welfare Board Meeting held on 4th May, 2010.
- Organizing of Cultural functions, Drawing competition & Slogan writing competition.
- Transport subsidy for organization of Excursion trip.

HOLIDAY HOMES

There are 38 Holiday Homes all over the country for use by its employees and their family members.

Staff Strength

Total staff strength including Schedule Caste, Schedule Tribe, Ex-Servicemen, and Women employees as on 31st December 2010 is given in the following table:

Total Number of working Employees - Schedule Caste, Schedule Tribe, Ex-Servicemen, Women as on 31st December 2010

Group	Number of employees	Schedule Caste	Schedule Tribe	Ex-Servicemen	Women
A	8054	1300	487	5	509
B	48430	7539	2112	145	7738
C	185557	33704	9482	669	23955
D	40337	9304	2276	25	7517
Industrial Workers	2486	479	235	1	120
Total	**284864**	**52326**	**14592**	**845**	**39839**

TABLE - 1

SUB: STATUS OF TELEPHONE EXCHANGES AND DIRECT EXCHANGE LINES AS ON DECEMBER 31, 2010 & MARCH 31, 2010

S. No.	Circles	No. of Telephone Exchanges as on		Direct Exchange Lines (Fixed+WLL+CMTS) as on	
		31.12.2010	31.3.2010	31.12.2010	31.3.2010
1	Andaman & Nicobar	46	47	203,459	144,162
2	Andhra Pradesh	4,267	4,213	8,328,246	6,623,545
3	Assam	604	605	1,623,735	1,449,647
4	Bihar	1,214	1,238	5,059,300	4,393,360
5	Chhattisgarh	580	613	1,438,845	1,312,914
6	Gujarat	3,113	3,220	5,543,638	5,128,392
7	Haryana	1,354	1,343	3,645,018	3,360,608
8	Himachal Pradesh	1,186	1,189	1,956,817	1,629,323
9	Jammu & Kashmir	368	366	982,934	1,206,500
10	Jharkhand	489	506	1,883,297	1,721,506
11	Karnataka	2,789	2,777	7,117,589	6,043,318
12	Kerala	1,245	1,243	8,990,135	7,507,638
13	Madhya Pradesh	2,416	2,560	4,529,645	4,106,731
14	Maharashtra	4,923	4,939	8,579,517	7,690,988
15	North East - 1	366	363	737,346	699,099
16	North East - 2	222	225	871,033	699,764
17	Orissa	1,174	1,169	4,140,844	3,111,765
18	Punjab	1,519	1,526	5,566,542	4,946,226
19	Rajasthan	2,308	2,330	6,757,903	5,909,457
20	Tamilnadu	2,022	2,031	8,478,781	6,642,879
21	Uttar Pradesh (East)	2,185	459	11,152,124	1,363,623
22	Uttar Pradesh (West)	1044	2189	3,474,512	9,608,722
23	Uttaranchal	481	1069	1,541,215	3,435,103
24	West Bengal	1,380	1,384	3,640,395	3,137,479
25	Kolkata	523	532	3,644,295	3,109,242
26	Chennai	323	325	2,471,365	2,298,581
	BSNL TOTAL	**38,141**	**38,461**	**112,358,530**	**97,280,572**

TABLE - 2

SUB: STATUS AND %AGE OF RURAL TELEPHONE CONNECTIONS AS ON DECEMBER 31, 2010 & MARCH 31, 2010

S. No.	Circles	2010-11 (as on December 31, 2010)			2009-10 (as on March 31, 2010)		
		Rural	Total	%age of Rural	Rural	Total	%age
1	A & N	91,913	203,459	45.18	66,479	144,162	46.11
2	A.P	4,063,461	8,328,246	48.79	2,977,585	6,623,545	44.95
3	Assam	551,016	1,623,735	33.94	481,092	1,449,647	33.19
4	Bihar	1,914,557	5,059,300	37.84	1,685,704	4,393,360	38.37
5	Chhattisgarh	500,384	1,438,845	34.78	429,861	1,312,914	32.74
6	Gujarat	1,883,861	5,543,638	33.98	1,757,234	5,128,392	34.26
7	Haryana	2,198,395	3,645,018	60.31	1,993,384	3,360,608	59.32
8	H.P	1,271,913	1,956,817	65.00	1,095,005	1,629,323	67.21
9	J & K	153,512	982,934	15.62	181,652	1,206,500	15.06
10	Jharkhand	559,448	1,883,297	29.71	511,072	1,721,506	29.69
11	Karnataka	1,440,102	7,117,589	20.23	1,365,195	6,043,318	22.59
12	Kerala	4,849,556	8,990,135	53.94	4,298,039	7,507,638	57.25
13	M. P	1,686,185	4,529,645	37.23	1,602,228	4,106,731	39.01
14	Maharashtra	3,036,428	8,579,517	35.39	2,917,366	7,690,988	37.93
15	N. E- 1	260,363	737,346	35.31	251,036	699,099	35.91
16	N. E- 2	331,729	871,033	38.08	261,593	699,764	37.38
17	Orissa	1,805,627	4,140,844	43.61	1,422,670	3,111,765	45.72
18	Punjab	2,169,290	5,566,542	38.97	2,162,279	4,946,226	43.72
19	Rajasthan	2,366,703	6,757,903	35.02	2,210,131	5,909,457	37.40
20	Tamilnadu	1,664,351	8,478,781	19.63	1,522,716	6,642,879	22.92
22	U. P(East)	3,341,366	11,152,124	29.96	2,709,114	1,363,623	198.67
23	U. P(West)	813,146	3,474,512	23.40	846,408	9,608,722	8.81
24	Uttaranchal	666,318	1,541,215	43.23	553,750	3,435,103	16.12
25	West Bengal	1,891,598	3,640,395	51.96	1,600,280	3,137,479	51.01
26	Kolkata	0	3,644,295	–	0	3,109,242	–
26	Chennai	118,969	2,471,365	4.81	120,952	2,298,581	5.26
	BSNL TOTAL	**39,630,191**	**112,358,530**	**35.27**	**35,022,825**	**97,280,572**	**36.00**

TABLE - 3

SUB: STATUS OF VILLAGE PUBLIC TELEPHONES (VPTS) AS PER CENSUS 2001 AS ON DECEMBER 31, 2010 & MARCH 31, 2010

S. No.	Circles	Total Villages as per census 2001	2010-11 (As on Dec. 31, 2010)		As on March 31, 2010	
			Villages Covered by VPTs	%age of villages covered	Villages Covered by VPTs	%age of villages covered
1	Andaman & Nicobar	501	341	68.06	337	67.27
2	Andhra Pradesh	26,613	23,692	89.02	23,333	87.68
3	Assam	25,124	24,032	95.65	23,992	95.49
4	Bihar	39,032	38,898	99.66	38,891	99.64
5	Chhattisgarh	19,744	18,134	91.85	18,101	91.68
6	Gujarat	18,159	16,926	93.21	16,905	93.09
7	Haryana	6,764	6,678	98.73	6,683	98.80
8	Himachal Pradesh	17,495	17,365	99.26	17,300	98.89
9	Jammu & Kashmir	6,417	6,284	97.93	5,994	93.41
10	Jharkhand	29,354	28,759	97.97	27,733	94.48
11	Karnataka	27,481	27,441	99.85	27,419	99.77
12	Kerala	1,372	1,372	100.00	1,372	100.00
13	Madhya Pradesh	52,117	51,986	99.75	51,986	99.75
14	Maharashtra	41,442	39,607	95.57	39,319	94.88
15	North East - 1	7,347	5,262	71.62	4,990	67.92
16	North East - 2	7,456	5,095	68.33	5,016	67.27
17	Orissa	47,529	43,805	92.16	43,222	90.94
18	Punjab	12,301	12,063	98.07	12,061	98.05
19	Rajasthan	39,753	38,838	97.70	38,803	97.61
20	Tamilnadu	13,837	13,827	99.93	13,826	99.92
22	Uttar Pradesh (East)	76,993	74,121	96.27	74,123	96.27
23	UttarPradesh (West)	20,949	23,629	112.79	23,636	112.83
24	Uttaranchal	15,761	15,186	96.35	14,814	93.99
25	West Bengal	37,512	34,564	92.14	33,882	90.32
26	Kolkata	893	567	63.49	567	63.49
26	Chennai	1,655	1,655	100.00	1,655	100.00
	BSNL TOTAL	**593,601**	**570,127**	**96.05**	**565,960**	**95.34**

TABLE - 4

SUB: URBAN / RURAL TELEDENSITY AS ON DECEMBER 31, 2010 DUE TO BSNL PHONES

S. No.	Circles	Total No. of Telephone Connections as on December 31, 2010			TELEDENSITY AS ON December 31, 2010		
		URBAN	RURAL	Total	URBAN	RURAL	OVERALL
1	A & N	111,546	91,913	203,459	58.20	30.64	41.38
2	A. P	4,264,785	4,063,461	8,328,246	18.19	6.64	9.84
3	Assam	1,072,719	551,016	1,623,735	23.57	2.12	5.32
4	Bihar	3,144,743	1,914,557	5,059,300	30.66	2.19	5.19
5	Chhattisgarh	938,461	500,384	1,438,845	16.83	2.69	5.94
6	Gujarat	3,659,777	1,883,861	5,543,638	15.27	5.30	9.32
7	Haryana	1,446,623	2,198,395	3,645,018	16.99	13.04	14.37
8	H. P	684,904	1,271,913	1,956,817	91.65	21.08	28.85
9	J & K	829,422	153,512	982,934	26.48	1.79	8.41
10	Jharkhand	1,323,849	559,448	1,883,297	18.12	2.32	6.00
11	Karnataka	5,677,487	1,440,102	7,117,589	25.77	3.86	12.00
12	Kerala	4,140,579	4,849,556	8,990,135	46.82	18.83	25.98
13	M .P	2,843,460	1,686,185	4,529,645	14.28	3.24	6.29
14	Maharashtra	5,543,089	3,036,428	8,579,517	17.26	4.96	9.19
15	N. E - 1	476,983	260,363	737,346	27.17	4.76	10.20
16	N.E - 2	539,304	331,729	871,033	38.33	7.34	14.69
17	Orissa	2,335,217	1,805,627	4,140,844	34.29	5.33	10.18
18	Punjab	3,397,252	2,169,290	5,566,542	28.50	12.66	19.16
19	Rajasthan	4,391,200	2,366,703	6,757,903	27.16	4.60	9.99
20	Tamilnadu	6,814,430	1,664,351	8,478,781	25.60	5.33	14.65
22	U. P (East)	7,810,758	3,341,366	11,152,124	33.55	2.93	8.11
23	U. P (West)	2,661,366	813,146	3,474,512	12.91	1.93	5.54
24	Uttaranchal	874,897	666,318	1,541,215	31.15	9.37	15.54
25	West Bengal	1,748,797	1,891,598	3,640,395	16.60	2.94	4.86
26	Kolkata	3,644,295	0	3,644,295	24.31		24.31
26	Chennai	2,352,396	118,969	2,471,365	21.60		22.70
	BSNL TOTAL	**72,728,339**	**39,630,191**	**112,358,530**	**22.84**	**4.76**	**9.76**

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VIII. 2 Mahanagar Telephone Nigam Limited

INTRODUCTION

Mahanagar Telephone Nigam Limited (MTNL) was incorporated on February 28, 1986 under the Companies Act as a wholly owned Government Company and on April 01, 1986 assumed responsibility for the control, management, operation of the telecommunications Networks in Delhi & Mumbai. MTNL is the principal provider of fixed-line telecommunication service in these two Metropolitan Cities of Delhi and Mumbai and for GSM Mobile services (four peripheral towns Noida, Gurgaon, Faridabad & Ghaziabad along with Delhi city) and the areas falling under the Mumbai Municipal Corporation, New Mumbai Corporation and Thane Municipal Corporation along with Mumbai city, also come under the jurisdiction of the company.

The authorized capital of the Company is Rs. 800 crores. The Paid up Share Capital is Rs. 630 crores divided into 63 crore share of Rs. 10 each. At present, 56.25% equity shares are held by President of India & his nominees and remaining 43.75% shares are held by FIIs, Financial Institutions, Banks, Mutual Funds and others including individual investors.

MTNL has been given Navratna status in 1997 and was listed in New York Stock Exchange in 2001.

Further MTNL is providing dial up internet services in Delhi and Mumbai under separate non-exclusive license agreement. MTNL launched Broadband service based on the state-of-the-art ADSL2+ technology in the year 2005. MTNL is providing Triple play services i.e. voice (including VOIP), high speed internet and IPTV on this broadband network. In June 2008, MTNL was granted the ILD license for providing international long distance services. In August 2008, MTNL was granted spectrum for 3G and BWA services.

Physical Performance

Tele Services

A variety of phone plus services have been made available by MTNL to the customers connected to modern state-of-the-art technology digital exchanges e.g.

Computerized morning alarm, voice mail, automatic changed number announcement, computerized fault booking/ payment system etc.

MTNL is also providing a host of value added services like Call Waiting, Call forwarding, wake up calls, absent subscriber service, caller identification, friend and family, night talk, call conference and voice mail etc. to the customers.

MTNL has taken several steps to improve its interface with the customers. MTNL has introduced improved bill collection and payment procedures (including bill payment over the Internet and via credit card), opened Tele-marts at which most subscriber services are available, introduced telephone directories on the Internet and on CD-ROM and implemented a customer service management system. MTNL's

customer service management system enables our staff to provide customers with access to a range of "on-line" services, including registration for new telephone lines, changes of address and issuances of bills, and allows us to monitor complaints from a single point of contact. MTNL has identified high usage "commercially important persons" and are making all efforts to strengthen our relationship with these subscribers. In addition to this, Telephone Adalats and Open House Sessions are being held for both way effective communications with the customers.

During the financial year 2010-11 (upto December 2010) MTNL Delhi has provided 1.92 lakh new cellular connections and a net of 2.33 lakh new connections (including fixed line, WLL, GSM & Broadband). Details of achievements as on 31.12.2010 are given in Annexure-I of this chapter.

During the same period, 5.00 lakh lines of GSM capacity have been added in Delhi & Mumbai. MTNL Mumbai provided 1.38 lakh new cellular connections and a net of 1.44 lakh new connections (including fixed line, WLL, GSM & Broadband) during the financial year 2010-11. Details of achievements as on 31.12.2010 are given in Annexure-II of this chapter.

Thus, during 2010-11 (upto December) a total of 9.95 lakh lines net switching capacity and 3.77 lakh net new connections (including fixed line, WLL, GSM & Broadband)) were added by MTNL.

Fault Rate

The fault rate during 2010-11 vis-à-vis of previous years is as shown below:

No. of faults/100 telephones/month

Units	2006-07	2007-08	2008-09	2009-10	2010-11 Upto December 2010
Delhi	9.42	7.20	6.71	7.71	8.10
Mumbai	10.53	11.38	9.10	7.25	9.31

It may be seen that the above fault rate has been coming down consistently. However, there is increase in the year 2010-11 which is primarily due to developmental work carried out in Delhi for CWG-2010 and incase of Mumbai due to excessive rains during the year. It is expected to come down in the last quarter of the current year.

Clearance of Waiting List

With sustained efforts and timely implementation of various projects, the waiting list is "NIL" in Delhi & Mumbai. MTNL is providing telephone on demand in service areas.

Different Services and projects

Broadband Network

Broadband services based on ADSL2+ are being provided by MTNL. Triple play services i.e. voice (including VOIP), high speed Internet and IPTV are being offered on this broadband network. The service

is very popular with the subscribers. MTNL presently have a installed broadband capacity of almost 16.13 lakh ports and its customer base has reached to 9.14 lakh as on 30.12.2010.

During the year 2009-10 the installation of 500K broadband access equipment has been completed. In view of the great demand MTNL had planed to increase the existing broadband capacity further by 1 million ports. The project was to be implemented in two phases, where 300K ports in Mumbai and 200 K ports in Delhi were to be installed in each phase. The phase-I equipment has already been installed and commissioned. In phase -II of this project, induction of MSANs for the first time in MTNL is planned. MSANs are capable of providing both Broadband and POTS connection through single MSAN equipment.

GSM Cellular Mobile Services

2G services: To meet the growing demand of MTNL cellular service, GSM capacity in Delhi and Mumbai was planned to be further expanded by 2 million each (including 750K line 3G). As on December 2010, capacity expansion has been completed in both MTNL Delhi & Mumbai. As on date, the total GSM network capacity of MTNL is 3325K in Mumbai and 3025K in Delhi.

3G services: The 3G technology is the natural evolution of 2G services which will not only facilitate better and efficient utilization of spectrum but also provide higher speed and data throughputs. 3G technology will provide faster internet surfing and will enable MTNL to provide a host of video related services and enriched value added services like Video telephony, High Speed Mobile Broadband, Mobile TV, Video Streaming, Video On Demand, On line Gaming, M-commerce etc. to its subscribers.

MTNL was earmarked frequencies in 2100 MHz band on 08.08.2008 for deployment of 3G services in Delhi and Mumbai. MTNL has been allotted 1 carrier of 5 MHz each in Delhi and Mumbai for the deployment. On 11th December 2008, Hon'ble Prime Minister inaugurated 3G mobile services of MTNL in Delhi. It is the first ever 3G service launched by any operator in India. In addition, to better and efficient utilization of spectrum, the 3G services will offer various host of services to the subscribers like Video telephony, High Speed Mobile Broadband, Mobile TV, Video Streaming, Video On Demand , On line Gaming etc. On February 5, 2009, MTNL had launched 3G data/voice services in the NDMC area of Delhi (with 50 Node B's) with the brand name "Jadoo". Now the services are available in entire service areas of MTNL Delhi & Mumbai.

MTNL was awarded 3G spectrum in the year 2008 ahead of recently held auction. However, under the rules, the MTNL has to match the winning bid of the 3G auction, which ended on 20.05.2010. Accordingly, MTNL has already paid Rs. 6,564 crore combined for 3G spectrum for Delhi and Mumbai LSAs.

3G being a new technology in India, it will take some time to fully educate and convince the customers to go for 3G connections. 3G services are expected to grow in a big way when sufficient 3G content based on the Indian conditions is available which will happen after number of 3G customers cross a certain threshold level which will make 3G contents cheaper and affordable. To make the 3G services popular among its subscribers, MTNL has allowed all its GSM mobile subscriber access to 3G services.

Current network status and future growth plan of 3G network in MTNL Delhi & Mumbai is as follows:

PLAN	3G Node B SITES IN MUMBAI	3G Node B SITES IN DELHI	3G CAPACITY IN EACH AREA
Present Network Status (3G)			
AS ON 31.12.10 (3G)	618-MACRO 22-MICRO	728-MACRO 48-MICRO	750K EACH IN DELHI & MUMBAI
Expansion Plan of 3G Network			
3G NODE B ON PH-II COMPLETION	720-MACRO 100-MICRO	720-MACRO 100-MICRO	750K EACH IN DELHI & MUMBAI

Bouquet SMS / IVRS / GPRS based VAS are available. Some of them are listed below:

- Caller Ring Back Tone (CRBT)
- Missed Call Alert
- Voice SMS
- Save your Contents (Dolphin Vault)
- M-Commerce (Bill Payment through Mobile)
- Mobile TV
- Closed User Group (CUG)
- Status of Railway reservation, passport, etc.
- News, Cricket, Matrimony, etc.
- Map and Direction
- Interactive Voice Response Service (IVRS)

Steps Taken by MTNL to increase the subscriber base of 3G service:

- MTNL is offering the host of services to the subscribers like Video telephony, High Speed Mobile Broadband, Mobile TV, Video Streaming etc.
- To boost the demand for its 3G services, MTNL is also bundling its services with data cards and handsets from various vendors. MTNL has adopted two strategies to provide 3G data cards to its subscribers:
  1) Bundling of 3G data cards with MTNL's 3G service. In this case, MTNL allows suppliers to sell their 3G data cards bundled with MTNL's 3G services. Before allowing such data cards with MTNL's 3G services, MTNL thoroughly tests the data card for its performance in MTNL's 3G network.
  2) MTNL itself supplies the 3G data cards to its customers.

- In order to provide world class service/experience to its esteemed customers, MTNL has appointed M/s Qualcomm for carrying out technical audit of the 3G networks being deployed in Delhi and Mumbai. The auditing included network dimensioning evaluation and performance of 3G/WCDMA Networks of MTNL Delhi and Mumbai. The auditor also required to clearly bring out additional requirements if any, to ensure a network of global quality. M/s Qualcomm has already completed the work and submitted the report which is under examination in MTNL. Based on the report, to make the 3G network World class MTNL is planning to upgrade the network with latest technology features.

- To utilize its vast fixed line and Broadband Networks for carrying the GSM traffic by way of deployment of suitable FMC (Fixed Mobile Convergence) technologies in Delhi & Mumbai, MTNL has started trial of femto cell solution in MTNL Mumbai.

MNP implementation in MTNL: Up gradation of STP, various network elements and installation of MNP gateway has already been completed in MTNL Delhi & Mumbai.. MTNL's fixed line and mobile network is fully ready for MNP implementation. MTNL is in process of implementing MNP as per migration plan finalized by DOT.

Femtocell deployment: For efficient utilization of spectrum and off loading it upto certain extent (as it is a scarce national resource), MTNL on October 22, 2009 had floated an Expression of Interest for deployment of Femto cell solution in Delhi and Mumbai. Femtocell is a small cellular base station specially designed for use in residential and small business environments. Femtocell connects to the service providers' network via broadband (such as DSL or Cable) such that the 3G Wireless Network traffic is carried by Broadband network. In response to the EOI two vendors namely M/s Sterlite Technologies Ltd and M/s Alcatel-Lucent Ltd have submitted their technical proposals. The deployment will be in two phases. The phase-1 consists of pilot deployment and phase-2 will be for commercial deployment. The business model for phase-2 (i.e. whether to go for outright purchase or on revenue share/managed capacity model) will be decided after completion of phase1. As against the pahse-1 (pilot deployment), M/s Alcatel-Lucent has already deployed its Femtocell solution in MTNL Mumbai and conducting the trials.

Partnering Conexus Mobile Alliance: MTNL and BSNL joined prestigious Conexus Mobile Alliance of GSM Operators in Asia Pacific region. At present, a total of 11 operators are part of the Alliance from 10 countries. MTNL & BSNL jointly hosted Conexus Working Group meetings in Delhi in June 2009. MTNL is actively participating in the alliance activities. Various customer friendly schemes like SIM replacement programme, Blackberry replacement programme, data roaming, flat rate data roaming, Conexus wide SMS etc. are new initiatives taken recently by the Alliance. The Alliance held its last quarterly meeting in Hanoi, Vietnam.

CDMA Based Mobile Services

The CDMA Network in Delhi and Mumbai is an state-of-the-art CDMA 20001X technology based network of 400K lines capacity each capable of supporting data speed upto 144 Kbps.

Convergent Billing & CRM Project

The P.O. of Convergent Billing & CRM project was awarded to M/s BEL for Supply, installation & Commissioning of convergent billing system & CRM system on turnkey basis. The project once implemented will serve as a single converged platform for all billing and CRM application across all the line of business of MTNL i.e. GSM, CDMA and landline, broadband, leased circuits as well as upcoming services. The customer will get a consolidated bill for all services which he has subscribed from MTNL. All the hardware and software supplied in this project have been installed and the following application have been commissioned and running successfully.

- IUC billing
- Bill printing
- Fault repair system
- CSMS system
- CDMA LoB at Delhi
- GSM LoB at Mumbai

This project will facilitate single bill for all services, flexibility in billing and innovative tariff packages for subscribers and thus will help in reducing billing complaints.

Mobile Number Portability (MNP) shall be made functional on this platform and GSM LoB at Delhi is likely to be commissioned in January 2011. The other LoBs ie PSTN leased circuit, broadband shall be migrated and commissioned subsequently in phased manner to this system.

DWDM

MTNL had placed a PO for the supply of 42 terminals (20 Delhi & 22 Mumbai) of 40 channels 10 GB/ channel DWDM equipment to strengthen its transmission network. The installation of all the terminals in Delhi and Mumbai has been done. In Delhi traffic has been put through on trial basis on all the 10 routes. In Mumbai loading of traffic is in progress.

FTTH

MTNL is adding optical fibre in its access network and is planning to introduce FTTH based on GPON so as to provide all of its important customers with fibre connectivity to their homes. This will help in meeting their increased bandwidth requirement for both data and video applications. The tenders for GPON based passive and active equipment for FTTH was floated. APO for the FTTH active equipments has been placed on M/s ITI. Regarding FTTH passive tender it has been decided to float a short term tender. The tender document for FTTH Passive is in the process of approval.

Customer Premises Equipment

Tender for procurement of a total quantity of 3.14 lakh for various types of ADSL 2+ CPEs was floated. Out of these orders have been placed for 1.52 lakh numbers of CPEs and orders are under process for balance quantity. Further, in order to provide low cost services, a tender has been floated to procure 1.00 lakh single port CPEs. The evaluation of bids against this tender is under process.

Lawful interception System (LIS)

MTNL is planning for the procurement of LIS solution for its ISP networks from C-DOT. The Tender for procurement of hadware for this solution shall be floated shortly.

Utilization of MTNL's Assets

MTNL has been making considered efforts to maximize revenue by gainful utilization of its assets. MTNL has started sharing its assets such as staff quarters, office space with other Government, semi-Government, autonomous organizations / bodies and public sector Banks. In this respect, MTNL has already rented out around 25,000 sq. ft. of space and rented out 40 staff quarters.

Release of Spectrum from Defence

In order to enable defence forces to release spectrum, DOT decided to build and handover an alternative optical fiber network on all India basis to defence forces.

The project is being implemented jointly by MTNL and BSNL in consultation with DOT and defence forces and is being funded by DOT. MTNL has been given responsibility of laying optical fibre network in its service area of Delhi and Mumbai.

Execution of works for Air Force's network has been completed barring few pockets for want of requisite permissions.

Certifying Authority Solution

APO has been issued to M/s HCL Infosystems Ltd to implement certifying authority system.

MLLN expansion

An APO has been placed on M/s ITI for expansion of MLLN network of Mumbai by 1000 Lines.

Centralized Wi-Fi authentication

An APO has been issued for the procurement of Centralized Authentication System for Wi-Fi network.

Upcoming Projects

Worldwide Interoperability for Microwave Access (Wi-Max)

MTNL floated an Expression of Interest (EOI) on 15.07.2010 for deployment of Wi-Max network confirming to IEEE 802.16e standard in Delhi and Mumbai on revenue share model. Only a single bid was received against the EOI. The techno-commercial evaluation of the bid is already over. The financial evaluation is almost completed by MTNL team and report is under submission to MTNL management for approval.

IMS based NGN network

In order to overcome obsolescence and unserviceability of exiting TDM exchange due to stoppage of support by existing vendors and to provide next generation multi media services to its customers, MTNL is contemplating implementation of an NGN, which shall preferably be based on IMS platform. IMS

technology is being inducted in MTNL and in India for the first time. The tender for this has been floated. vendor conference on the tender was held on 20.12.2010. Based on the inputs in vendor conference modified tender shall be floated shortly.

IP / MPLS Network

A State of the Art IP/ MPLS Networks was set up by MTNL for providing High Definition TV, games data & security and world class communication infrastructure, across different games Venue during the CWG -2010 held in Delhi. Redeployment of IP-MPLS based CWG-2010 network is in progress at different locations in both Delhi and Mumbai. This will create high capacity IP banwidth aross these cities.

NLD Service

MTNL has license for operating NLD services in the country. MTNL is planning to establish NLD hubs in 13 important cities is addition to Delhi and Mumbai. The existing NGN switch in Delhi will be augment to handle NLD services.

Joint Ventures

MTNL-STPI IT Services (MSITS): MTNL-STPI IT Services Ltd. is a 50:50 Joint Venture between Software Technology Parks of India (STPI) and Mahanagar Telephone Nigam Limited, (MTNL). The JV formed in 2006 combines the STPI's rich experience as an ISP and MTNL's track record of being India's leading telecom operating company to offer niche portal services to the Indian community. The JV aims to provide exclusive data center services, messaging services, business application services to the identified sectors of economic activity and thereby also popularizing the **.in** domain in the networked community across the world.

Present Status: The work of infrastructure creation for tier -III data center at Chennai has been completed successfully. The process of setting up of Tier-III data Centre has also been started & finalizations of EOI for inviting bids are in advanced stage. Efforts are being made to operationalise the data center at the earliest. In the mean while, JV has already started commercially exploiting the created infrastructure by hosting servers of M/s TCS for MEA's 'Passport Seva Service' on commercial terms.

Company has also decided to establish green data center of Tier-III standard at Delhi and Hyderabad. RFI for appointment of consultant for creation of infrastructure required for setting up of Green data center of Tier-III standard at Hyderabad and Delhi has already been floated.

United Telecom Limited (UTL)

UTL is a joint venture company of MTNL (26.68%), Tata Communications Limited (26.66%) and TCIL (26.66%) along with partner Nepal Ventures (P) Limited (NVPL) (20%). The company provides basic, Mobile, NLD, ILD and data services in Nepal. The Company is operational since 10th October, 2001 with initial offerings of WLL based basic services in Nepal. The company has set up CDMA 1X EVDO infrastructure to cater to growing data and VAS needs of its customers in Nepal. The company has also launched RUIM cards for its CDMA subscribers to have better control over fault rates. The total no. of PCOs are 1646 and UTL network has its presence in 36 districts (out of 75 districts in Nepal).

As on date, UTL has achieved the customer base of 506,724. The Incoming ILD traffic in March and April, 2010 are 12.17 Mn & 7.51 Mn minutes respectively. The present paid up equity capital of the company is INRs. 1,945 Mn. The Turnover of the company for FY 2009-10 is around INRs 1,058.55 Millions and Profit After Tax (PAT) is around INRs. 0.54 Millions.

Millennium Telecom Limited: Millennium Telecom Ltd. (MTL), a joint venture of MTNL and BSNL has planned to lay its own Submarine Cable from Indian East Coast of India to Malaysia and/or Singapore with possible branches to Bangladesh, Myanmar, A&N islands, Thailand and Indonesia and from West Coast of India to UAE and/or Saudi Arabia with possible branches to Pakistan, Oman, Iran, Qatar, and Kuwait with an aim for onward connectivity to the Europe and North America through existing and newly planned Submarine cables. The existing Traffic of BSNL and MTNL will be carried on these cables and company intends to lease out the extra capacity.

Present Status: The bids were invited from interested parties for laying out the submarine cable. However, due to drastically fall in international bandwidth prices from the time when this project was conceived, MTL Management is reviewing the financial viability of the project.

Subsidiary Companies

Mahanagar Telephone Mauritius Limited (MTML): MTML a 100% subsidiary company of MTNL was incorporated as a private domestic company in November 2003 at Mauritius. Registered with Authorized capital of 600Millon MUR and paid up capital of 300M at the time of inception. The Authorized capital was enhanced to MUR 1500Million in 2009. Company Got Licences from the ICTA (Telecom regulatory at Mauritius) to operate Fixed Wireless Services, Mobile Services, International Long Distance Services and Internet Services.

110K capacity switch of CDMA Technology (CDMA 1x and EVDO) is installed in Port Louis & island is covered through 53 towers installed as a part of radio network. 10 Customer care services all over the island and one call centre are operational to meet the customer requirements. Company is Providing Fixed, Mobile, International Long Distance and Internet services to the people of Mauritius at most competitive rates. Around $ 20 million have been invested by MTNL in MTML.

Future Plans

MTML is expanding the capacity of core network up to 310K lines along with implementation of GSM network in Mauritius for 200K lines capacity and replacing 110K core capacity of CDMA 1X EVDO network with an investment (capex) of around US$23.2 million in two phases through its ongoing open global tendering process.

Meeting Competition

MTNL has followed aggressive marketing strategy by taking lead in product innovations and making them available at affordable price to its target customers, MTNL has been the first to launch some of the latest telecom technologies in the country like ADSL 2+ & VDSL2 in broadband, IPTV on MPEG4 technology, VOIP and 3G Mobile service, Separate Sales Units are targeting Retail and Corporate clients.

MTNL has recently launched e-CRM platform for customer care, billing and management of GSM & CDMA customers. The same is going to be implemented soon for its Fixed line, Broadband and other services as well. MTNL offers multi channel access options to its customers like web, toll free helpline numbers & customer care centers, apart from distributors and retail channels.

To overcome its constrains of limited growth opportunity in Metro city of Delhi and Mumbai, MTNL has been continuously looking for organic as well inorganic growth opportunities in overseas market particularly in African region.

To continue its leadership position, in future MTNL plan to rollout WiMax, NGN based fixed service, Fixed Mobile Converged service etc. for its customers.

Financial Performance

The financial performance of MTNL during 2009-10 is as follows:

Despite stiff competition, from other operators, MTNL has achieved a financial turnover of Rs 3656.10 crore, during the year 2009-10, as compared to the previous year's turnover of Rs. 4455.99 crore. During the said period MTNL posted a loss of Rs. (2610.97) crore basically because of the following reason :

- Provision of retirement benefits to the tune of Rs 2,731 crore.
- General reduction in tariff including per second tariff plan.
- MTNL is providing services in Delhi and Mumbai only and unable to offer Pan India tariff plans unlike its competitors who have presence in other circles.
- Increase in competition from Private Operators.
- Churn in landline.

Following steps have taken by the Company to improve operation and to earn more revenue:

- Focus on Broadband and Enterprise business.
- New streams of revenue from sharing of resources with other service providers.
- Introduction of various schemes to attract new Landline subscribers. & sustaining existing Landline base.
- More emphasis on adding GSM and Broadband.
- Introduction of Flexible tariff policies.
- Rationalization of expenditure to reduce Administrative and Operative cost.
- Close monitoring of faults is being maintained. Emphasis has been given on the improvement of the quality of service.
- Stress has been given on the redressal of the subscriber's complaints by increasing number of positions in Customer Care Centre, providing single window at the Sanchar Haats.

However, the Q2 results of current year 2010-11 have shown a growth in revenue after a long time which is a healthy trend.

Capital Expenditure on Technology

During the year 2009-10, MTNL has spent an amount of Rs 1194.70 Crore as against Rs. 871.12 crore in the previous year on capital expenditure. This was achieved entirely through internal resource generation. Capex upto 31.12.2010 Rs 491.83 Crore (unaudited).

Revenue Assurance

Outstanding dues have been consistently reduced by MTNL through vigorous efforts at ensuring revenue realization. The efforts of MTNL to reduce the outstanding dues can be seen from the table given below:

(Rs. in crore)

Declining Outstanding * arrears of MTNL					
Period	**31.03.2007**	**31.03.2008**	**31.03.2009**	**31.03.2010**	**30.06.2010**
MTNL	1218.43	1188.62	1173.73	1119.60	1129.08

(for Basic, GSM and CDMA services)*
(CDMA outstanding has been revised on 30.06.2010 due to reconciliation with new CDMA Billing system)

The outstanding dues of MTNL as on 30.06.2010 for Basic, GSM and CDMA are Rs 1129.08 Crores. This is accumulated outstanding dues since inception of MTNL and over previous period, even prior to independence. These outstanding dues have arisen out of an accumulated billing of Rs. 89160.47 crores (approx.) over the past many decades. Hence the total outstanding dues are about 1.27 % of the total billed amount.

Revenue assurance is a process which ensures all billable activities occurring on the network are accurately captured, rated and billed. A revenue assurance program has also implemented in MTNL wherein efforts are being made to ensure that maximum revenue billing and revenue realization takes place to further the outstanding dues. The above program includes:

- Matching of commercial data and billing data.
- Matching of CDRs generated and billed.
- Issue of bills in time and so that payments are received promptly.
- Introduction of various modes of payment of bills including online payment.
- Settlement of Interconnect billing.
- Appointment of Private recovery agents for recovery of old outstanding, etc.

Frequent revenue meetings are also held at various levels of management to further reduce the old outstanding and overall revenue realization.

Further, TRAI has also mandated various telecom operators to conduct Audit of Billing and Metering System by the auditors empanelled by TRAI itself, which supplements the revenue assurance program being implemented by MTNL.

A Convergent Billing System is under installation, which contains a significant component of Revenue Assurance. This is expected to improve revenue assurance efforts of MTNL further.

Further, to concrete the revenue assurance programme MTNL has deployed an audit firm of International Stature Company in Mumbai for revenue assurance audit for landline interconnect billing process. in this detailed review of basic call charging analysis need to end CDR reconciliation accuracy in service usage recording accuracy of billing / meditation/ switch database of interconnect agreement with partners is being done for further plug the leakage of the revenue. The same is completed and action being taken as a continuing activity. Moreover the same has been planned for GSM services in Mumbai and will be implemented by second quarter of the financial year.

In Delhi GSM a credit control module has been introduced wherein if usage of any subscriber exceeds the prescribed limit, the number is automatically disconnected.

STAFF STRENGTH

The total employees of MTNL were 44,177 as on 30.09.2010 belonging to different categories. Of the total employees, the numbers of employees belonging to Scheduled Caste are 7932, which constitute 17.95% of the total employees. The total number of employees belonging to Scheduled Tribe is 1518, which is 3.44% of total employees.

(As on September 30, 2010)

Group	Total Staff	Women	Persons with disabilities	ST	SC
A	1207	42	0	52	210
B	5199	588	14	104	711
C	26052	7277	155	493	4501
D	11696	1177	35	869	2510
DRM	23			0	–
Total	**44177**	**9084**	**204**	**1518**	**7932**

Trading of MTNL Shares

Shares of MTNL are listed with principal stock exchanges in the country such as Delhi, Calcutta, Mumbai and Chennai exchanges as well as National Stock Exchange of India. The shares are being traded regularly in the National Stock Exchange and Bombay Stock Exchange (NSE & BSE). ADRs issued by the company are listed with New York Stock Exchange (NYSE) and are regularly traded there.

Annexure-I

DEVELOPMENT TARGETS / ACHIEVEMENTS - DELHI

Sl. No.	Items	Targets (MOU) 2009-10	Achievements 2009-10	Targets (MOU) 2010-11	Achievements 2010-11 (upto Dec' 10)
A	Switching (in K lines)				
	(i) Gross Capacity	*	711.866	*	525.150
	(ii) Scrapping/ Decommissioning/ Redeployment	*	0	*	25.150
	(iii) Net Capacity $	500	711.866	500	500.000
B	DELs (in K)				
	(i) Gross	*	580.751	*	353.398
	(ii) Net $	500	355.934	500	198.909
C	Tax/Tandem (in K lines)	*	*	*	0.000
D	Transmission	*		*	
	(a) SDH System	-	-	-	-
	(i) STM-16	-	6	-	15.000
	(ii) STM-4	-	16	-	7.000
	(iii) ADM-1/STM-1	-	24	-	39.000
	(iv) TMs-1	-	2	-	
E	Optical fiber Cable (in Route Kms)	*	182.792	*	448.287
F	Optical fiber Cable (in Fiber Kms)	20000	9094.464	20000	26156.400
G	ISDN*	0	*		
H	Waiting List	*	-	*	-
I	Broadband subscribers	*	65568	*	34448.000
J	Internet connection	*	65	*	41.000
K	IPTV subscribers	10000	-534	12500	844.000
L	VOIP	4000	-707	*	-324.000

$ inculding (fixed line, WLL & GSM)

** Target not specified in MOU*

Annexure-II

DEVELOPMENT TARGETS / ACHIEVEMENTS - MUMBAI

Sl. No.	Items	Targets (MOU) 2009-10	Achievements 2009-10	Targets (MOU) 2010-11	Achievements 2010-11 (upto Dec' 10)
A	Switching (in K lines)				
	(i) Gross Capacity	*	570.42	*	800.048
	(ii) Scrapping/ Decommissioning/ Redepolment	*	212.55	*	55.434
	(iii) Net Capacity $	500	357.87	500	744.614
B	DELs (in K)	*		*	
	(i) Gross	*	422.63	*	240.729
	(ii) Net $	500	179.12	500	81.136
C	Tax/tandem (In K lines)	*	*	*	0.000
D	Transmission	*		*	
	(a) SDH System	-	-	-	-
	(i) STM-16	-	71	-	10.000
	(ii) STM-4	-	53	-	21.000
	(iii) ADM-1/STM-1	*	208	*	100.000
E	Optical fiber Cable (in Route Kms)	20000	406.17	20000	284.900
F	Optical fiber Cable (in Fiber Kms)	*	26283.1	*	20448.720
G	ISDN*	-262	*	265.000	
H	Waiting List	*	-	*	-
I	Broadband subscribers	*	54762	*	63430.000
J	Internet connection	*	65124	*	4435.000
K	IPTV subscribers	10000	-1025	12500	-763.000
L	VOIP	4000	780	*	-474

$ inculding (fixed line, WLL & GSM)

** Target not specified in MOU*

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VIII. 3 ITI Limited

INTRODUCTION

ITI Limited is India's pioneering venture in the field of telecommunications since 1948.

With state-of-the-art manufacturing facilities spread across six locations and a countrywide network of marketing / service outlets, the Company offers a complete range of telecom products and total solutions covering the whole spectrum of Switching, Transmission, Access and Subscriber Premises equipment. In tune with the technology trend, ITI has embarked on manufacture of mobile infrastructure equipment based on both GSM (Global System for Mobile) and CDMA (Code Division Multiple Access) technologies. ITI has also acquired the technology for manufacture of broadband infra equipment and next generation network equipment based on IP technology. ITI has a dedicated Network Systems Unit for carrying out installation and commissioning of equipments, as well as for undertaking turnkey projects and providing value-added services. Network Systems Unit, has been awarded ISO 9001-2008 standard. ITI has aptly earned recognition as Top Turnkey Services Company in Indian Telecom for four years in the past.

ITI joined the league of world-class vendors of GSM technology with the inauguration of BTS equipment manufacturing facility at its Mankapur and Rae Bareli Plants, which opened a new era of indigenous mobile equipment production in the country. The Company has already executed 18 Million Lines GSM order of BSNL, 9 Million Lines each for West Zone & South Zone and also MTNL order. The success of technology upgradation and induction is visible across all units of ITI, which fully conform to ISO-9001: 2000 Quality Management System. ISO 14001:2004 Environmental Management System standard also successfully implemented at Palakkad, Mankapur (PCB & Hybrid Circuits Division) and Bangalore Plants. Next Generation Soft Switch and STP (Signaling Transfer Point) are slated for production at the Palakkad Plant, which is already producing SIM (Subscriber Identity Module) Cards. The Naini Plant has taken up production of SDH (Synchronous Digital Hierarchy) and DWDM (Dense Wavelength Division Multiplexing) optical equipment besides DLC (Digital Loop Carrier) equipment.

The Company is also starting the manufacturing of the broadband equipment like WiMAX / WiMAX-CPE and GPON at Rae Bareli Plant. The Company is geared to provide all equipment for total network solutions and specific communication needs of Defence forces. The Bangalore Plant manufacturing the CDMA infra equipment, ADSL-CPE (Asymmetric Digital Subscriber Line- Customer Premises Equipment), and also set up a state-of-the-art world class Data Centre in partnership with M/s TRIMAX on revenue sharing model to handle IP Projects for Banks / Financial sector and other Telecom related Software.

By deploying its rich telecom expertise and vast infrastructure, the Company is consolidating its diversification into IT and IT-enabled services, acquiring a competitive edge in the convergence market. ITI's competency in the WAN (wide area networking) segment is reflected through two major projects commissioned successfully for BSNL: Countrywide MLLN (Managed Leased Line Network) and SSTP (Standalone Signal Transfer Point). ITI is one of the agencies selected for preparation of National ID cards. For the first time in the country ITI has deployed the G-PoN technology in BSNL Network with the collaboration of M/s Alphion, USA.

The successful implementation of the project to expand Internet Services equipment of MTNL is a significant step in the continuing growth of the Company in the IT Sector.

Strategic communications is the Company's forte with a proven record of engineering secure communication networks for India's Defence forces. Extensive in-house R&D work is devoted towards specialized areas of Encryption, NMS, IT and Access products to provide complete customised solutions to various customers.

CAPITAL STRUCTURE

The Authorised Share Capital of the Company as on 31.03.2010 was Rs.700 crore. The paid-up Share Capital as on that date was Rs.588 crore. (Rs.288 crore equity shares of Rs. 10/- each and Rs. 300 crore as preference shares of Rs. 100/- each). The percentage share of Central Government in equity as on 31.03.2009 is 92.87%.

Shri K.L. Dhingra, CMD of ITI Ltd. meeting with the UPA Chairperson Smt. Sonia Gandhi in Rae Bareli

Highlights of Performance during 2009-10

- GSM - Infra equipment value of Rs.3253 crore supplied.
- WLL CDMA-Infra equipment value of Rs.409 crore supplied.
- G-PoN equipment value of Rs.240 crore supplied.
- STMs Optic Fibre equipment value of Rs.192 crore supplied.

- SSTP / IP TAX equipment supplied and I&C completed for all sites, value of Rs. 101 crore.
- Defence / ASCON equipment worth value of Rs. 150 crore supplied.
- Services Business etc. worth value of Rs. 156 crore executed.

Highlights of Performance during 2010-11 (April to December 2010)

- GSM - Infra equipments value of Rs. 1433.79 crore supplied to BSNL (West Zone & South Zone) and MTNL Mumbai.
- G PON - Equipments value of Rs. 91.99 crore supplied.
- DWDM - Equipments value of Rs. 48.19 crore supplied.
- STMs Optic Fibre equipments value of Rs. 41.60 crore supplied.
- ADSL-CPE terminals value of Rs. 37.47 crore supplied.
- New Identified Products value of Rs. 30.09 crore supplied.
- Services Business etc. value of Rs. 102.53 crore executed.

The agreement was signed in New Delhi by Mr. R. K. Agarwal, Director (Marketing) on behalf of ITI Ltd, and Mr. Vipin Tyagi, Director of C-DoT. Mr. K.L. Dhingra, CMD of ITI Ltd and Mr. V.V.R. Shastri, Executive Director of C-DoT were present on the occasion.

Details of physical achievements

Physical Performance for 2008-09, 2009-10 and 2010-11 (April - December 2010)

Major Products	Acctg. Unit	2010-11 April-Dec., 2010(Provl.)	2009-10	2008-09
MANUFACTURING PRODUCTS				
OCB-283 CSN / LOCAL	Rs. Cr.	1.04	27.12	13.06
OCB-TAX / TANDEM	Rs. Cr.	–	–	–
SSTP / IP TAX	Rs. Cr.	0.66	101.38	57.05
C-DOT PRODUCTS & SPARES	Rs. Cr.	1.82	6.02	18.87
DIVERSIFIVED PRODUCTS	Rs. Cr.	11.76	8.45	6.34
STMs / OPTIC FIBRE EQUPS	Rs. Cr.	41.60	191.95	78.70
SATCOM	Rs. Cr.	6.71	2.22	7.48
PCM MUX	Rs. Cr.	8.84	9.46	16.11
DWDM	Rs. Cr.	48.19	8.25	128.87
MLLN	Rs. Cr.	2.08	27.36	66.50
EPBT / CLIP PHONES	Rs. Cr.	0.15	1.49	0.06
ADSL - CPE	Rs. Cr.	37.47	19.78	45.86
G PON	Rs. Cr.	91.99	240.14	–
SIM CARDS / USIM	Rs. Cr.	5.34	5.84	21.25
MNID	Rs. Cr.	4.40	9.00	–
SMPS	Rs. Cr.	10.24	16.14	25.08
MISC. Products	Rs. Cr.	10.52	17.79	17.87
DEFENCE / ASCON	Rs. Cr.	39.30	149.68	20.72
TURNKEY PROJECTS				
GSM - INFRA	Rs. Cr	1433.79	3253.06	944.03
WLL- CDMA INFRA	Rs. Cr	10.96	409.46	66.94
IFWT	Rs. Cr.	–	–	12.44
SERVICES BUSINESS	Rs. Cr.	102.53	155.68	194.09
TOTAL (Incl. Duty)	Rs. Cr.	1869.39	4660.32	1741.32

IMPORTANT ACTIVITIES / EVENTS

- For the first time in the Country, the Company, in collaboration with M/s Alphion Corporation USA, deployed the G-PON (Gigabit-Passive Optical Network) technology in BSNL Network. The manufacturing activity is being done at ITI's Rae Bareli Plant.
- ITI is one of the three Public Sector Undertakings short listed by RGI (Registrar General of India) for providing Multi Purpose National ID cards. The job involves collection of citizen data including biometrics followed by issue of ID cards. The manufacturing of ID cards and collection of Data is being done by Palakkad Plant.
- ITI has set up facilities for manufacture of 10 Gbps DWDM (Dense Wavelength Division Multiplexing) Equipment at Naini Plant. ITI has also secured TSEC Certification for this product.
- ITI has made its entry into the power reforms sector by winning the prestigious order from Tamil Nadu Electricity Board (TNEB) for setting up of IT infrastructure for collection of baseline energy and revenue data of the identified towns and setting up of customer care center. This covers Restructured Accelerated Power Development Reforms Program (R-APDRP) scheme.
- ITI, C-DoT signed agreement to evaluate, discuss and negotiate contractual relationship concerning the Transfer of Technology for C-DoT Gigabit Passive Optical Network (G-PoN) System.
- The Company has set up the State-of-the-art Tier 3+ Data center facility at Bangalore on Private-Public Partnership (PPP) model.
- The Government of India has approved in principle, the formation of three Joint Venture Companies (JVCs) by ITI for manufacturing the following product-mix with equity participation of 51% to 74% by the Strategic Partners who are Global manufacturers. The balance equity is by the Government.

Sl.No.	Product	Location of JVC
1	WiMAX and Associated Customer Premises Equipment (CPE)	Rae Bareli
2	GEPON / GPON and Optical Transmission Equipments	Naini
3	IP CORE Systems	Bangalore

The product lines are chosen in tune with the requirement of Government's "Mission Broadband to All" with an ambitious goal of providing 100 million broadband connections in the next 3 to 5 years. ITI has already released RFQ cum RFP document calling for bids from prospective partners. The formation of JVCs is under process.

Manpower Position

Total strength of employees of the Company at the end of the year 2009-10 was 11737 as compared to 12556 at the end of previous year. The voluntary retirement scheme was not in operation during the year. Since the introduction of VRS, a total of 13744 employees have availed.

Manpower as on 1st January 2011 is 10868 employees.

Citizen's Charter

ITI LIMITED is Public Sector Undertakings under the administrative control of Department of Telecommunication.

Company's website: itiltd-india.com

The Right to Information Act, 2005 has enabled all the citizens to seek information. Since introduction of the Act, a mechanism has been drawn to process all requests received by Corporate Office / Units under the Act. The Units and Regional offices have designated PIOs / APIOs with CPIO & Appellate authority at the Corporate Office.

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VIII. 4 Telecommunications Consultants India Limited

INTRODUCTION

Telecommunications Consultants India Ltd. (TCIL) was incorporated in March' 1978 as a wholly owned Government of India Company. The Company was set up with the objective of extending the wide ranging Indian telecom expertise to friendly developing countries on commercial basis. On August 1, 1978, the Company commenced its business. The Company has since then been engaged in adopting world class communication and IT technologies for catering to the local needs of countries mainly in the developing world. The Company is establishing itself in the changed Telecom & IT Scenario and has diversified into Information & Technology and Civil infrastructure sector.

VISION

"To excel in providing solutions in ICT, Power and Infrastructure Sectors globally by anticipating opportunities in technology".

MISSION

"To excel and maintain leadership, in providing Communication Solutions on turnkey basis in telecommunication and information technology service sector globally and to diversify into High Tech Area of providing excellent Infrastructure facilities."

OBJECTIVES

- To provide world-class technology and Indian expertise globally in all fields of telecommunications and information technology.
- To sustain, expand and excel in its operations in Overseas / Indian Markets by developing proper marketing strategies.
- To acquire State-of-the-Art technology on a continuing basis and maintain leadership.
- To diversify into Cyber Parks, Cyber Cities, Intelligent Buildings, Highways & Roads and other Civil works.
- Focus and consolidate on business opportunities in the fields of Tele-education and Tele-medicine in India and abroad.
- Entering areas of cost - effective network technologies for building new Telecom & IT networks and upgrading legacy networks.
- Focusing on Broadband Multimedia Convergent Service Networks.

- Entering new areas of IT as systems integrator in Telecom billing, customer care, value added services, e-Governance networks and the like.
- Aggressively promoting O&M contracts abroad in the IT and Telecom fields by utilising TCIL's expert technical manpower.
- Developing Telecom & IT training infrastructure in countries abroad.
- Aggressively participating in SWAN projects in various States.

CORE COMPETENCE

Company is undertaking projects in all the fields of Telecommunications and IT in India and abroad. The core competence of the Company is in Network projects, Software Support, Switching and Transmission Systems, Cellular Services, Rural Telecommunications, Optical Fibre based backbone network, CDMA based basic service networks, Billing, Mediation and Customer Care systems for different Telecom services. The company is also diversifying into other business areas such as Optical Fibre on Ground Wire for power utilities, e-governance for State Governments in India, communication system for Airport Terminals & Light Houses, construction of intelligent buildings, cyber parks, roads etc.

The Company has also entered into Basic and other licensed Services in India/abroad through the JV route. TCIL has operations of GSM cellular mobile services through a JV in Rajasthan and operation of CDMA system based basic services in Nepal, through a JV with MTNL, VSNL and a Nepalese partner.

The Company secures business by participating in international and national competitive bidding. The company is also contributing to establish strategic communication links in the neighboring countries like Nepal, Afghanistan, Bhutan, Myanmar etc.

GOVERNMENT INVESTMENT IN TCIL

Company was incorporated in 1978 with a Paid-up Capital of Rs. 10 lakhs. In 1982-83, the Paid-up Capital of the Company was increased to Rs. 30 lakhs. The Paid-up Capital after 7 Bonus Issues in 1987-88, 1992-93, 1994-95, 1996-97, 2001-02, 2003-04 & 2008-09 stands at Rs. 43.20 crore. Company has paid total dividend of over Rs. 167 crore so far to Govt. of India on direct Government Investment of Rs. 30 lakhs.

The net worth of the Company as on 31.03.2010 was Rs 411.86 crore.

OVERSEAS OPERATIONS

Company has worked in over 60 countries so far. The Present on going operations are in Kingdom of Saudi Arabia, Kuwait, Oman, UAE, Qatar, Algeria, Nepal, Bhutan, Afghanistan, Ethiopia, Sudan, Mauritius and Seychelles. Company is implementing PAN Africa, e - Network project covering all 53 member countries of African Union (AU).

HIGHLIGHTS 2010-11

PROJECT EXPORTS

Project Exports during 2010-11 are likely to be Rs.257.00 crore.

TURNOVER & PROFIT

Turnover in 2010-11 is likely to be Rs. 800.00 crore against previous year's figure of Rs. 732.77 crore.

THRUST ON HI-TECH PROEJCTS

Company has given thrust on hi-tech projects in new technologies of OPGW based broadband networks, GSM / CDMA Projects, FTTH, Communication system for monitoring of ships from shore, Satellite Networks, E-medicine, E-education, E-Governance Projects consultancy in creation of Cyber cities and Installation of Lawful Interception Monitoring System (LIM).

INFORMATION TECHNOLOGY PROJECTS

With the change in telecom scenario, Company took a bold step & attempted to enter new areas and diversified its operations in the allied fields. Company has also revitalized & restructured the IT Division from software development to take part in IT & Networking Projects, and, made this as a thrust area of development. These initiatives have paid rich dividends, and, have pitch-forked the Company as a High-Tech Company with a progressive outlook and capable of operating in cutting-edge technologies like Fibre To The Home (FTTH), Lawful interception, Next Generation Networks (NGN), IT consultancy, e-Governance etc.

ORDER BOOKING

During the year 2010-11, till December 2010, Company has secured orders of over Rs. 1072crore. The major orders booked during the period are as under:

- Modernisation & expansion of Network and the infrastructure of Sierratel in Sierraleone valued at Rs.136.00 crore.
- MOC PTT 908 for supply of material valuing Rs 51.94 Crore in Kuwait.
- Outside Plant Work in Oman valued at Rs.5.81 crore.
- Expansion of Rural GSM Cellular Network for Bhutan Telecom in Bhutan of Rs.0.70 crore.
- Civil Tower Work / STC in KSA valued at Rs.9.94 crore.
- OSP Work in KSA valued at Rs. 18.63 crore.
- GSM / Satellite O&M project of STC valued at Rs. 24.22 crore.
- Supply of 16-Ch UHF Modulator - Combiner & L-Band Splitters in Ethiopia valued at Rs. 4.93 crore.

- Construction, Supervision & commissioning of Township for IOCL at Paradip, Orissa for Rs. 2.74 crore.
- Turnkey Project of JNNURM Udaipur for RUIFDCO Rajasthan for Rs. 24.55 crore.
- Construction of Phase A work of Jawahar Navodaya Vidyalaya at Mamit (Mizoram) valued at Rs. 15.73 crore.
- Preparation & Approval of DPR, Execution in Five Towns of Rajasthan valued at Rs. 105.00 crore.
- Construction of Special Care New Born unit Building for state Health Society, Bihar valuing Rs. 11.21 Crore.
- Construction of Phase A work of Jawahar Navodaya Vidalaya at Banswara-II for Navodaya Vidalaya Rajasthan valuing Rs. 17.00 crore.
- BOT Project on Bina-Kurwai-Sironj for value of Rs. 91.27 crore.
- Widening & Reconstruction of Package-1, Katni-Pawal-Ananganj under Regular contract for the value of Rs. 25.69 crore.
- Mobily, NSN and Ericsson for OSP works & supply of manpower for Rs. 6.32 Lakh and OSP work for the value of Rs. 6.05 crore.
- Contract from Govt. of UP for providing computer aided education including setting up of computer labs in 1500 schools on BOT basis for the value of Rs. 2.91 crore.
- Contract for providing technical manpower to DETASAD, KSA for the value of Rs.10.5 crore.
- Supply, installation and providing computer aided education for 1500 schools on BOOT basis in the state of UP for UPDSCO for the value of Rs. 291 crore.
- Supply, installation and commissioning of expansion order from 5 to 10 Million capacity for NIB-II Project 3 for BSNL for the value of Rs. 128.88 crore.
- Supply, Erection & commissioning of 24F ADSS Type Optical Fibre Cable alongwith Associated Accessories and Olte & Mux equipment for the value of Rs. 10.31 crore.

JOINT VENTURES OF TCIL

BHARTI HEXACOM LTD.

TCIL is operating Cellular Telephone Services in Rajasthan Circle through BHARTI HEXACOM LTD., a Joint Venture promoted by TCIL and now working in partnership with Bharti Televentures Ltd. of New Delhi. Presently the company has subscriber base of over 9.8 million with over 30% market share. TCIL has a share-holding of 30% in this company with investment of Rs. 106.20 Crore. The JV Company has achieved a turnover of Rs. 1782.50 crore and PBT of Rs. 407.01 Crore upto December,2010. The Government has approved disinvestment of TCIL stake in the JV company and the same is under process.

INTELLIGENT COMMUNICATION SYSTEMS INDIA LTD. (ICSIL)

TCIL has a share-holding of 36% in this company with investment of Rs.36 lakhs. Company has achieved a turnover of Rs. 26.15 Crore and PBT of Rs. 0.59 Crore up to December, 2010.

TAMILNADU TELECOMMUNICATIONS LTD. (TTL)

Tamilnadu Telecommunications Ltd. (TTL) was promoted in 1988 with Tamilnadu Industrial Development Corp. (TIDCO). Company has diversified its operations by manufacturing of Optic Fibre Cables. TCIL has an investment of Rs. 6.95 crore in TTL. The government has approved the restructuring of TTL in which TCIL share will increase to 49% amounting to Rs. 22.38 crore by conversion of TCIL loan and other dues of Rs. 15.43 crore into Equity. The company has achieved a turnover of Rs. 12.22 crore upto December, 2010.

TCIL BELLSOUTH LTD.

TCIL had promoted TCIL BELLSOUTH LTD. (TBL) with BellSouth of USA. TCIL's share in the equity of this company is Rs. 84 lakh. TBL has executed telecom billing & administration projects in a number of countries including Ukraine, Malaysia, Zimbabwe & Bolivia. TBL has implemented Billing System and Customer Care packages in Malawi, Swaziland and in Nepal. The company is undertaking IT equipment installation works for a number of countries in Africa currently. The company has achieved a turnover of Rs. 0.47 crore upto December, 2010.

TCIL SAUDI CO. LTD.

TCIL has formed a Joint Venture Company in KSA styled as "TCIL SAUDI CO. LTD. (TSCL)" wherein TCIL's equity is 40% with investment of Rs. 67 lakhs. NATEL, the other partner is having 60% equity. NATEL has expressed desire to leave the JVC as partner. Pending their replacement by another suitable partner, the JVC has made an arrangement with NATEL that TCIL shall execute the projects in the name of TSCL and shall be responsible for the profits and losses while NATEL shall have no say in the Management and NATEL shall be paid a sponsorship fee of 3% to 5% of value of such contracts. As such, turnover obtained through TSCL has been merged with TCIL operations. Besides TSCL operations, TCIL in its own name is also executing projects.

UNITED TELECOM LTD.

TCIL in association with Mahanagar Telephone Nigam Limited (MTNL), Tata Communications Ltd (Erstwhile VSNL) and Nepal Ventures Pvt.Ltd. (NVPL) formed the JV Company called United Telecom Ltd. The Company has been awarded a license for providing Basic Telecom Services in the Kingdom of Nepal based on CDMA technology for providing Wireless in Local Loop. UTL has launched its services in September'03. Presently the company has subscriber base of over 3.4 Lakh. The Company has achieved a turnover of Rs. 64.63 crore upto December, 2010.

TCIL OMAN LLC.

During the year 2008-09 company has promoted another JV with MSE of Oman. TCIL share holding in the company is 70% i.e. OR 1,05,000. JV company is in the process of getting it registered with different department to take contracts in Oman. M/s MSE has requested to TCIL for transferring MSE's shares to M/s Al Azaiba & Co. Ltd. In this connection Indian Embassy has also issued no objection in favour of M/s Al-Azaiba Company. TCIL will not avail right of first refusal and 30% stake will likely to be transferred soon from M/s MSE Co. to M/s Al-Azaiba Company Ltd.

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IX. Statistical Supplement

Table-1

RELATIVE PERFORMANCE DURING MARCH 2009 - DECEMBER 2010

S.No.	Description		Position at the End of		Absolute	Position at the End of		Absolute
			March'09	March'10	Change (4-3)	March'10	December'10	Change (7-6)
1	2		3	4	5	6	7	8
1	Phones (In Lakh)	Total	4297.25	6212.80	1915.55	6212.80	7872.90	1660.10
		Wireline	379.65	369.57	-10.08	369.57	350.90	-18.67
		Wireless	3917.60	5843.23	1925.63	5843.23	7522.00	1678.77
		Public	895.46	1058.71	163.25	1058.71	1212.29	153.58
		Private	3401.79	5154.09	1752.30	5154.09	6660.61	1506.52
		Rural	1235.13	2007.73	772.60	2007.73	2598.30	590.57
		Urban	3062.12	4205.07	1142.95	4205.07	5274.60	1069.53
2	Teledensity	Overall	36.98%	52.74%	-	53.46%	66.17%	-
		Public	7.71%	8.99%	-	9.11%	10.19%	-
		Private	29.27%	43.75%	-	44.35%	55.98%	-
		Rural	15.11%	24.31%	-	24.56%	31.22%	-
		Urban	88.84%	119.45%	-	122.00%	147.52%	-
3	%age share of	Public	20.84%	17.04%	-	17.04%	15.40%	-
		Private	79.16%	82.96%	-	82.96%	84.60%	-
		Rural	28.74%	32.32%	-	32.32%	33.00%	-
		Urban	71.26%	67.68%	-	67.68%	67.00%	-
4	Switching Capacity (In Lakh)	Public	1103.68	1242.49	138.81	1242.49	1351.59	109.10
5	Village Public Telephones [VPTs]		549294	565960	16666	565960	570127	4167
6	PCOs (In Lakh)		20.89	18.58	-2.31	18.58	16.50	-2.08
7	OFC Route kms		609223	658548	49325	658548	677216	18668
8	TAX Lines (In Lakh)		88.33	99.32	10.99	99.32	99.32	0.00

Table-2

TELEPHONE PER 100 POPULATION-URBAN/RURAL (TELE-DENSITY) AS ON 31ST MARCH'10 & 31ST DECEMBER'10

Sl.No.	Circles/States	Tele-Density						Total Telephones						% of Rural DELs to Overall DELs	
		Overall		Urban		Rural		Overall		Urban		Rural			
		March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10
1	ANDAMAN & NICOBAR	29.96%	41.38%	41.84%	58.20%	22.50%	30.64%	144162	203459	77683	111546	66479	91913	**46.11%**	**45.18%**
2	ANDHRA PRADESH	57.23%	70.27%	143.18%	171.99%	24.33%	31.28%	48086548	59455585	33302739	40323744	14783809	19131841	**30.74%**	**32.18%**
3	ASSAM	29.99%	35.88%	96.54%	114.11%	18.47%	22.16%	9064392	10944175	4305054	5192821	4759338	5751354	**52.51%**	**52.55%**
4	BIHAR	37.96%	50.07%	206.93%	256.45%	18.11%	25.81%	36635088	48820668	20995237	26300212	15639851	22520456	**42.69%**	**46.13%**
5	CHHATTISGARH	5.74%	5.94%	17.31%	16.83%	2.32%	2.69%	1375313	1438845	945452	938461	429861	500384	**31.26%**	**34.78%**
6	GUJARAT	58.46%	76.12%	95.82%	124.23%	33.52%	43.69%	34430942	45297535	22592478	29766380	11838464	15531155	**34.38%**	**34.29%**
7	HARYANA	59.70%	77.49%	100.63%	136.77%	39.37%	47.55%	14957215	19657493	8367041	11642147	6590174	8015346	**44.06%**	**40.78%**
8	HIMACHAL PRADESH	79.35%	104.86%	298.15%	388.78%	52.53%	69.70%	5343219	7111692	2192382	2905462	3150837	4206230	**58.97%**	**59.15%**
9	JAMMU & KASHMIR	49.91%	46.62%	113.19%	97.46%	26.93%	28.02%	5779357	5451837	3491293	3052921	2288064	2398916	**39.59%**	**44.00%**
10	JHARKHAND	5.54%	6.00%	16.79%	18.12%	2.14%	2.32%	1721506	1883297	1210434	1323849	511072	559448	**29.69%**	**29.71%**
11	KARNATAKA	67.81%	82.25%	142.62%	166.84%	24.08%	32.28%	39908353	48789223	30965624	36750816	8942729	12038407	**22.41%**	**24.67%**
12	KERALA	80.36%	96.67%	184.18%	228.94%	44.65%	51.26%	27654979	33447092	16222816	20245154	11432163	13201938	**41.34%**	**39.47%**
13	MADHYA PRADESH	45.23%	57.67%	111.21%	138.92%	20.11%	26.61%	32175715	41530241	21811824	27670320	10363891	13859921	**32.21%**	**33.37%**
14	MAHARASHTRA	50.30%	63.88%	85.10%	105.78%	32.27%	41.90%	46525690	59617439	26867954	33964120	19657736	25653319	**42.25%**	**43.03%**
15	NORTH-EAST- I	68.90%	80.58%	154.96%	184.74%	41.51%	47.16%	4936458	5823395	2680531	3242719	2255927	2580676	**45.70%**	**44.32%**
16	NORTH-EAST- II	11.91%	14.69%	31.63%	38.33%	5.82%	7.34%	699764	871033	438171	539304	261593	331729	**37.38%**	**38.08%**
17	ORISSA	39.30%	52.31%	133.25%	179.24%	20.61%	26.80%	15885139	21285790	8937321	12205255	6947818	9080535	**43.74%**	**42.66%**
18	PUNJAB	75.44%	97.97%	123.57%	162.14%	42.51%	53.32%	21700899	28462551	14438956	19327658	7261943	9134893	**33.46%**	**32.09%**
19	RAJASTHAN	52.76%	62.37%	120.89%	144.01%	31.42%	36.73%	35266093	42191327	19277720	23280499	15988373	18910828	**45.34%**	**44.82%**
20	TAMIL NADU	74.31%	93.89%	114.94%	145.90%	38.05%	46.02%	44441959	56342427	32413819	41960925	12028140	14381502	**27.06%**	**25.53%**
21	UTTARANCHAL	13.90%	15.54%	29.37%	31.15%	7.85%	9.37%	1363623	1541215	809873	874897	553750	666318	**40.61%**	**43.23%**
22	UTTAR PRADESH - [E]	38.54%	49.90%	109.49%	139.28%	18.72%	24.80%	45530401	59471525	26405510	33908257	19124891	25563268	**42.00%**	**42.98%**
23	UTTAR PRADESH - [W]	-	0.00%	-	0.00%	-	0.00%	30609309	40422273	20833270	27224320	9776039	13197953	**31.94%**	**32.65%**
24	WEST BENGAL	34.81%	47.84%	105.23%	141.12%	23.32%	32.60%	25927043	35873688	10993810	14867116	14933233	21006572	**57.60%**	**58.56%**
25	KOLKATTA	120.19%	150.74%		0.00%	*	0.00%	17865316	22595694	17143644	21760297	721672	835397	**4.04%**	**3.70%**
26	CHENNAI	149.42%	159.80%		0.00%	*	0.00%	12813769	13975879	12692817	13856910	120952	118969	**0.94%**	**0.85%**
27	DELHI	172.49%	208.94%		0.00%	*	0.00%	31010425	38371895	30666149	37811416	344276	560479	**1.11%**	**1.46%**
28	MUMBAI	143.71%	174.84%		0.00%	*	0.00%	29427409	36412822	29427409	36412822	0	0	**0.00%**	**0.00%**
	ALL- INDIA	**52.74%**	**66.17%**	**119.45%**	**147.52%**	**24.31%**	**31.22%**	**621280086**	**787290095**	**420507011**	**527460348**	**200773075**	**259829747**	32.32%	33.00%

*Note: Teledensity is calculated for UP(E) & UP(W) jointly due to non availabilty of separate population data for UP(E&W). *Data not available on the rural population in the Metros.*

Table-3

NUMBER OF TELEPHONES AS ON 31ST MARCH'10 & 31ST DECEMBER'10

Sl.No.	Circles/States	Wireline Phones = Fixed DELs						Wireless Phones (GSM+CDMA)						TOTAL TELEPHONES	
		TOTAL		PSUs' Operators		Private Operators		TOTAL		PSUs		Private Operators			
		March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10	March'10	December'10
1	ANDAMAN & NICOBAR	17989	16744	17989	16744	0	0	126173	186715	126173	186715	0	0	144162	203459
2	ANDHRA PRADESH	2461784	2382272	2107406	2016068	354378	366204	45624764	57073313	4516139	6312178	41108625	50761135	48086548	59455585
3	ASSAM	308339	257002	307725	255182	614	1820	8756053	10687173	1141922	1368553	7614131	9318620	9064392	10944175
4	BIHAR	970882	974258	961117	961629	9765	12629	35664206	47846410	3432243	4097671	32231963	43748739	36635088	48820668
5	CHHATTISGARH	266627	152100	204228	152100	62399	0	1108686	1286745	1108686	1286745	0	0	1375313	1438845
6	GUJARAT	2081793	1971551	1865968	1740637	215825	230914	32349149	43325984	3262424	3803001	29086725	39522983	34430942	45297535
7	HARYANA	822416	671414	786644	631370	35772	40044	14134799	18986079	2573964	3013648	11560835	15972431	14957215	19657493
8	HIMACHAL PRADESH	357846	341968	353228	336455	4618	5513	4985373	6769724	1276095	1620362	3709278	5149362	5343219	7111692
9	JAMMU & KASHMIR	232080	214983	232013	214836	67	147	5547277	5236854	974487	768098	4572790	4468756	5779357	5451837
10	JHARKHAND	412461	287872	412461	287872	0	0	1309045	1595425	1309045	1595425	0	0	1721506	1883297
11	KARNATAKA	2775622	2744898	2101485	2042895	674137	702003	37132731	46044325	3941833	5074694	33190898	40969631	39908353	48789223
12	KERALA	3460358	3314886	3345461	3197039	114897	117847	24194621	30132206	4162177	5793096	20032444	24339110	27654979	33447092
13	MADHYA PRADESH	1304636	1267875	1025184	925362	279452	342513	30871079	40262366	3081547	3604283	27789532	36658083	32175715	41530241
14	MAHARASHTRA	3009709	2881166	2696924	2521309	312785	359857	43515981	56736273	4994064	6058208	38521917	50678065	46525690	59617439
15	NORTH-EAST- I	199525	153154	199442	152999	83	155	4736933	5670241	499657	584347	4237276	5085894	4936458	5823395
16	NORTH-EAST- II	126847	124386	126847	124386	0	0	572917	746647	572917	746647	0	0	699764	871033
17	ORISSA	613412	568714	604844	558625	8568	10089	15271727	20717076	2506921	3582219	12764806	17134857	15885139	21285790
18	PUNJAB	1604009	1571980	1281984	1229874	322025	342106	20096890	26890571	3664242	4336668	16432648	22553903	21700899	28462551
19	RAJASTHAN	1525214	1346731	1414030	1242162	111184	104569	33740879	40844596	4495427	5515741	29245452	35328855	35266093	42191327
20	TAMIL NADU	2106642	2033394	1923014	1846804	183628	186590	42335317	54309033	4719865	6631977	37615452	47677056	44441959	56342427
21	UTTARANCHAL	284746	244622	284746	244622	0	0	1078877	1296593	1078877	1296593	0	0	1363623	1541215
22	UTTAR PRADESH - [E]	1498413	1476491	1409511	1381876	88902	94615	44031988	57995034	8199211	9770248	35832777	48224786	45530401	59471525
23	UTTAR PRADESH - [W]	1041331	611884	1006123	576535	35208	35349	29567978	39810389	2428980	2897977	27138998	36912412	30609309	40422273
24	WEST BENGAL	887827	792154	883961	786470	3866	5684	25039216	35081534	2253518	2853925	22785698	32227609	25927043	35873688
25	KOLKATTA	1463442	1415272	1270929	1214072	192513	201200	16401874	21180422	1838313	2430223	14563561	18750199	17865316	22595694
26	CHENNAI	1466374	1478203	1007296	991070	459078	487133	11347395	12497676	1291285	1480295	10056110	11017381	12813769	13975879
27	DELHI	2710835	2811631	1537460	1546758	1173375	1264873	28299590	35560264	2404388	2593999	25895202	32966265	31010425	38371895
28	MUMBAI	2945525	2982455	1959294	1920303	986231	1062152	26481884	33430367	2689628	2809755	23792256	30620612	29427409	36412822
	ALL- INDIA	36956684	35090060	31327314	29116054	5629370	5974006	584323402	752200035	74544028	92113291	509779374	660086744	621280086	787290095

Table-4

NUMBER OF VILLAGES WITH DIRECT ACCESS TO TELECOM FACILITIES

Sl.No.	Circles/States		No. of Villages (Rev.w.e.f.Oct.2007)	Villages covered with VPTs as on					PCOs as on (Local+STD+Highway)	
				Public		Private*	TOTAL VPTs			
				31.03.2010	31.12.2010	31.03.2010	31.03.2010	31.12.2010	31.03.2010	31.12.2010
1	Andaman & Nicobar		501	337	341	0	**337**	**341**	**702**	**729**
2	Andhra Pradesh		26613	23333	23692	1408	**24741**	**25100**	**200291**	**133531**
3	Assam		25124	23992	24032	0	**23992**	**24032**	**33862**	**30561**
4	Bihar		39032	38891	38898	0	**38891**	**38898**	**67160**	**64583**
5	Chhattisgarh		19744	18101	18134	0	**18101**	**18134**	**8630**	**5831**
6	Gujarat		18159	16905	16926	4114	**21019**	**21040**	**89587**	**61552**
7	Haryana		6764	6683	6678	0	**6683**	**6678**	**26273**	**16393**
8	Himachal Pradesh		17495	17300	17365	0	**17300**	**17365**	**11416**	**8950**
9	Jammu & Kashmir		6417	5994	6284	0	**5994**	**6284**	**12693**	**10726**
10	Jharkhand		29354	27733	28759	0	**27733**	**28759**	**18954**	**17510**
11	Karnataka		27481	27419	27441	0	**27419**	**27441**	**242020**	**195587**
12	Kerala		1372	1372	1372	0	**1372**	**1372**	**123469**	**89584**
13	Madhya Pradesh		52117	51986	51986	611	**52597**	**52597**	**56992**	**51249**
14	Maharashtra		41442	39319	39607	2643	**41962**	**42250**	**262797**	**181878**
15	North-East-I		7347	4990	5262	0	**4990**	**5262**	**9531**	**7856**
16	North-East-II		7456	5016	5095	0	**5016**	**5095**	**8628**	**8658**
17	Orissa		47529	43222	43805	0	**43222**	**43805**	**24796**	**17703**
18	Punjab		12301	12061	12063	879	**12940**	**12942**	**23897**	**16895**
19	Rajasthan		39753	38803	38838	3010	**41813**	**41848**	**55445**	**42893**
20	Tamil Nadu		13837	13826	13827	0	**13826**	**13827**	**216555**	**170784**
21	Uttaranchal		15761	14814	15186	0	**14814**	**15186**	**11065**	**9473**
22	Uttar Pradesh(E)		76993	74123	74121	0	**74123**	**74121**	**124809**	**116370**
23	Uttar Pradesh(W)		20949	23636	23629	0	**23636**	**23629**	**44103**	**23940**
24	West Bengal		37365	33882	34564	0	**33882**	**34564**	**60181**	**51441**
25	Kolkata		1040	567	567	0	**567**	**567**	**64083**	**55679**
26	Chennai		1655	1655	1655	0	**1655**	**1655**	**79513**	**75714**
27	Delhi		NA	0	0	0	**0**	**0**	**73819**	**65975**
28	Mumbai		NA	0	0	0	**0**	**0**	**137409**	**117781**
	All-India		**593601**	**565960**	**570127**	**12665**	**578625**	**582792**	**2088680**	**1649826**

*NA= Not Applicable * Due to application of UASL Private VPTs are constant since Oct.'2003.*

Table-5

NUMBER OF EMPLOYEES (DEPARTMENT OF TELECOMMUNICATIONS)- TOTAL, SCHEDULED CASTE/TRIBE, EX-SERVICEMEN (ABLED & DISABLED), WOMEN AND THEIR %AGE TO RESPECTIVE NUMBERS AS ON 31ST MARCH 2010

Group	No. of Employees DOT	Scheduled Caste	% to Total Employees	Scheduled Tribe	% to Total Employees	Ex-servicemen (Abled)	% to Total Employees	Ex-servicemen (Disabled)	% to Total Employees	Women Employees	% to Total Employees
A	614	82	13.36%	40	6.51%	0	0.00%	0	0.00%	60	9.77%
B	676	81	11.98%	22	3.25%	0	0.00%	0	0.00%	131	19.38%
C	620	147	23.71%	38	6.13%	11	1.77%	0	0.00%	87	14.03%
D	135	55	40.74%	16	11.85%	3	2.22%	0	0.00%	3	2.22%
Total	**2045**	**365**	**17.85%**	**116**	**5.67%**	**14**	**0.68%**	**0**	**0.00%**	**281**	**13.74%**

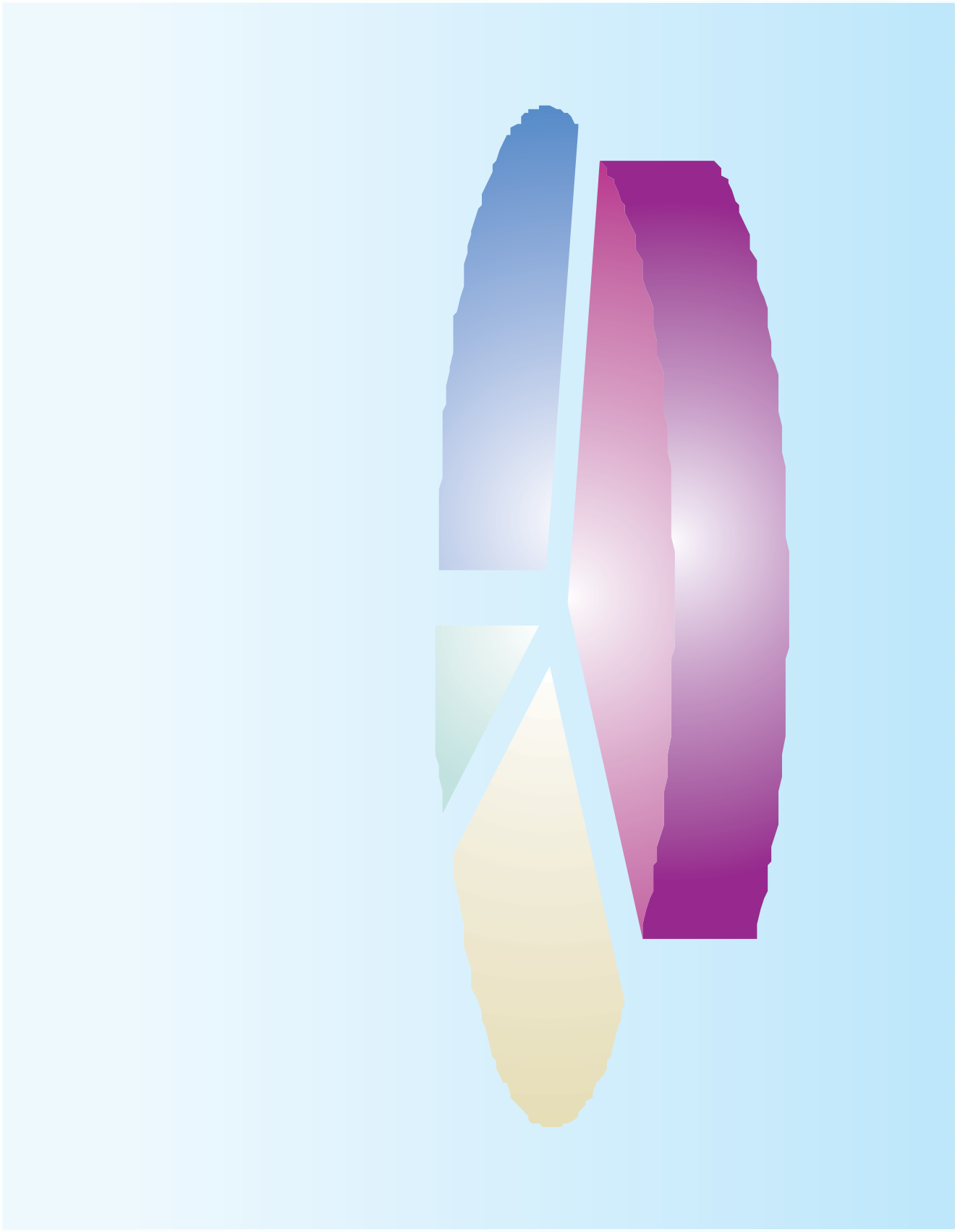
Table-6

NUMBER OF DISABLED EMPLOYEES (INCLUDING DOT) AS ON 31ST MARCH 2010

Class	Strength		Difference
	% of Sanctioned	Working	
Blindness of Low Vision	4	4	0
Hearing Impairment	2	0	2
Locomotors Disability or Cerebral Palsy	5	4	1
Total	11	8	3

— ★ ★ ★ ★ ★ —

X. Graphs and Charts



ACRONYMS

ACC	Accounts Calling Card
ADC	Access Deficit Charge
ADSL	Asymmetrical Digital Subscriber Line
ALTTC	Advanced Level Telecom Training Centre
APT	Asia Pacific Telecommunications
ATM	Asynchronous Transfer Mode
BRBRAITT	Bharat Ratna Bhim Rao Ambedkar Institute of Telecom Training
CACT	Component Approval Centre for Telecom
CAD	Computer Aided Design
C-DOT	Centre for Development of Telematics
CDMA	Code Division Multiple Access
CIDA	Canadian International Development Agency
CLIP	Callers Line Identification Protocol
CMPs	Cellular Mobile Phones
COMAC	Centralised Operation & Maintenance Centre
CSMS	Customer Service Management System
DCC	Development Coordination Committee
DCME	Digital Circuit Multiplication Equipment
DECT	Digital Enhanced Cordless Telephone
DIAS	Direct Internet Access System
DLC	Digital Loop Carrier
DWDM	Dense Wavelength Division Multiplexing
EMTS	Express Money Transfer Service
FAS	Fibre Access System
FDMA	Frequency Division Multiple Access
FRS	Fault Repair Service
GMPCS	Global Mobile Personal Communication by Satellite
GPSS	Gateway Packet Switching System
GRs	Generic Requirements
HECS	High Erlang Capacity Switch
HSDL	High bit rate Digital Subscriberline
IFRB	International Frequency Regulation Board

ILD	International Long Distance
IMRB	Indian Marketing Research Bureau
IN	Intelligent Network
INSAT	Indian National Satellite
IRs	Interface Requirements
ISDN	Intigrated Services Digital Network
ISP	Internet Service Provider
ITU	International Telecommunications Union
IUC	Interconnection Usage Charge
IVRS	Interactive Voice Response System
LMDS	Local Multi-Point Distribution System
LOI	Letter of Intent
MCIBS	Microprocessor Controlled Intelligent Building Systems
MCPC	Multi Channel Per Carrier
MLLN	Managed Leased Line Network
MMS	Multimedia Messaging Service
MPLS	Multi Protocol Label Switching
MSS	Mobile Satellite System
MTL	Millennium Telecom Limited
MUX	Multiplexer
NIB	National Internet Backbone
NLDS	National Long Distance Service
NTP	New Telecom Policy
NYSF	New York Stock Exchange
OFC	Optical Fiber Cable
OLTE	Optical Line Terminating Equipment
QTS	Quality of Telephone Service
QOS	Quality of Service
PCB	Printed Circuit Board
PCO	Public Call Office
PCS	Personal Communication System
PMRTS	Public Mobile Radio Trunk Service
POI	Point of Interconnection
POT	Plain Old Telephone
PRS	Premium Rate Service

PSTN	Public Switching Telecom Network
RABMN	Remote Area Business Message Network
RAN	Radio Access Network
RTTC	Regional Telecom Training Centre
SAS	System of Accounting Separation
SBM	Signal Base Module
SDCA	Short Distance Charging Area
SDH	Synchronous Digital Hierarchy
SIM	Subscribers Identification Module
SSA	Secondary Switching Area
STM	Synchronous Transport Module
TCP	Transmission Connection Protocol
TDMA	Time Division Multiple Access
TDSAT	Telecom Dispute Settlement Appellate Tribunal
TRAI	Telecom Regulatory Authority of India
TSP	Tribal Sub Plan
TTL	Telecom Testing Laboratory
TTO	Telecommunications Tariff Order
UHF	Ultra High Frequency
UMS	Unified Messaging Service
USF	Universal Service Fund
USO	Universal Service Obligation
UTL	United Telecom Limited
VCC	Virtual Calling Cord
VMS	Voice Mail Service
VPN	Virtual Private Network
VPT	Village Public Telephone
VRLA	Value Regulated Lead Acid
VSAT	Very Small Aperture Terminal
WLL	Wireless in Local Loop
WPC	Wireless Planning & Coordination
WPHS	Web Page Hosting Service
WSHS	Web Server Hosting Service

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Government of India
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