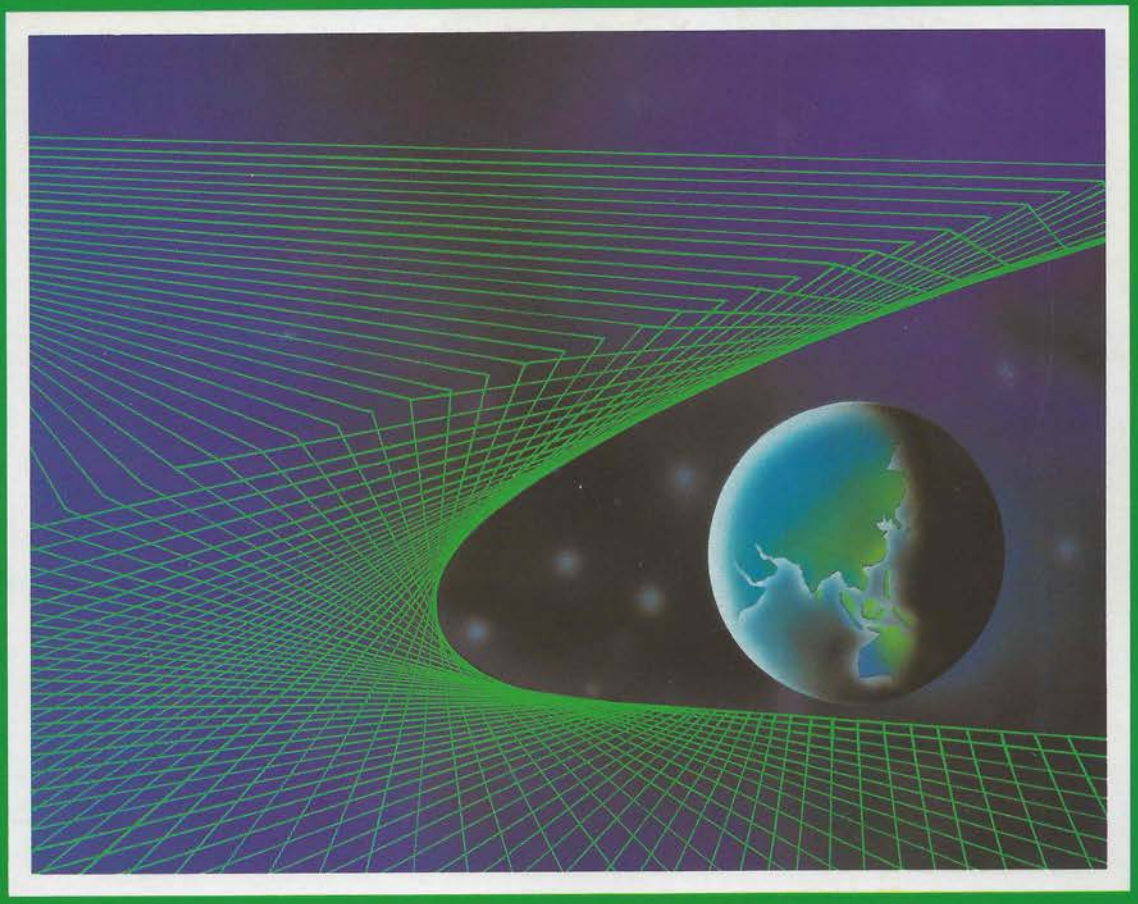
TELECOM COMMISSION



सत्यमेव जयते

MINISTRY OF COMMUNICATION

(GOVERNMENT OF INDIA)

Telecom Commission

Telecommunications services in India are provided and administered by the Ministry of Communications. The principal business of the Department of Telecommunications is to provide customers at home and business with local, national and international telephone services. Besides this, the department is involved in a host of activities in the world of communications and information movement.

With an annual revenue of more than Rs. 40,000 million the department is second only to that of railways. It employs over 450,000 people and has more than 5 million telephone subscribers. The department handles over 40 million telephone calls daily and an ever growing number of products and services—ranging from telex, data transmission, facsimile, mobile radio, radio paging and leased line services are being provided to both residential and business customers.

Telecom Commission-Genesis

Recently the telecom organisation has undergone a significant change. To meet the infrastructural demands of a developing economy and to keep pace with rapid changes in technology and growing customer demands the telecom organisation underwent a significant change in 1989. The Government of India decided to establish a Telecom Commission with full executive, administrative and financial powers to deal with various aspects of telecommunication.

Telecom Commission-Structure

The Commission functions under the Communications Ministry which is headed by the Minister of Communications. The Commission besides the Chairman consists of four full time members with responsibility for technology, production, finance and services and four part time members representing the Planning Commission and the Department of Finance, Industries and Electronics. The Commission is responsible for formulating the policy and preparing the budget for the DOT and overseeing the implementation of the Government policy in all areas concerning telecom.

Plans for Growth

The Telecom Commission has embarked on an ambitious program of modernising the telecom network in the country and is poised for a phenomenal growth from the current level of 5 million subscribers to 20 million subscribers by the year 2000. There has been significant increase in investment in telecom in the last few years—now running at over Rs. 35,000 million, per year with investment plans of Rs. 200,000 million over the next five years—and the department is geared towards creating a fully digital network by the year 2000.

Currently the department operates over 10,000 local exchanges and over 50 trunk exchanges. Today, over 30% of the exchanges in the network are digital. The analog exchanges will soon be replaced by the modern indigenously developed digital exchanges of the Centre for Development of Telematics and the E10B exchanges designed by Alcatel and manufactured domestically. Rural areas will have small digital exchanges bringing the power of telecom to the rural community in remote places.

Diverse Network

The benefits to the customer are many and include not only access to a wide range of services but also facilities such as abbreviated dialling, call forwarding three way calling, itemised billing and dynamic control of subscriber trunk dialling facility. Today domestic subscriber trunk dialling is available from over 800 locations and international subscriber dialling has been provided to over 150 countries.

The transmission network is also undergoing vast changes towards the realisation of an integrated digital network. Coaxial cables and analog microwave are being increasingly replaced by optical fibre on the trunk routes to form the backbone network. Today more than 5000 Km of optical cables have been installed and this number is expected to reach 50,000 Km by the year 2000. In the rural areas, Multi Access

Rural Radio systems will be deployed to provide an economical and reliable transmission medium. There are over 100 satellite earth stations for domestic and international links.

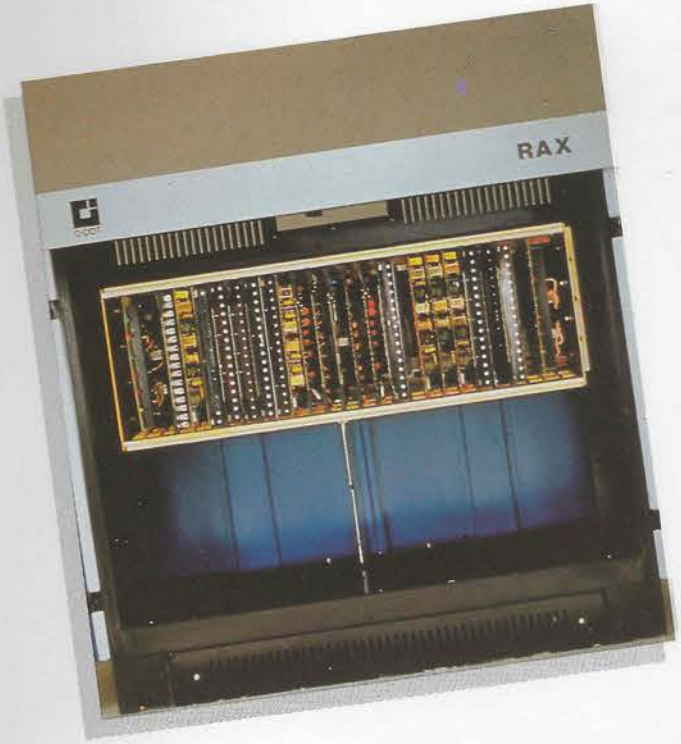
The terminal equipment have also undergone significant improvements and today many customers have attractive telephone instruments and enjoy the convenience of push button dialling. Public pay phones including smart card pay phones have been widely deployed and the goal is to significantly improve the accessibility to telephones.

Non-Voice Services

Telex continues to be an important messaging service and is widely used by the business community. The telex network has over 50,000 customers and carries over 400 million messages.

For carrying urgent messages to rural and remote areas telegraph service plays a vital role and in 1990 over 70 million telegrams were delivered by the department.

The telecom department provides advanced services like fax, voice band switched data and leased circuits. A satellite based network using very small aperture terminals provides data communication services to remote areas of the country. Plans are afoot to built a Public Switched Packet Data Network and packet data service should become available by the middle of 1991.



Technology for the future

A strong R & D organisation, Centre for Development of Telematics provides the technology support for the rapid introduction of the state of the art switching and transmission products into the network and development of new services based on these switches. The Telecom Engineering Centre (TEC) ensures that the right products go into the network by laying down the specifications and approving the products that go into the network. The department has made significant impact in the international organisations and standards bodies through its Wireless Planning and Coordination wing which provides a window to the international standards agencies.

The telecom equipment based on indigenous designs and overseas technology are manufactured not only by companies under the department of telecom like Indian Telephone Industries (ITI) and Hindustan Teleprinters (HTL) but also a host of organisations in the private sector Today, the private sector manufactures telephone sets PABXs and small central office switches and transmission equipment.

Telecom is poised for a rapid growth in India and the Telecom Commission is dedicated towards providing the best possible telecom infrastructure for economic development and provision of basic telephone service at affordable cost to a large number of customers in every corner of the country.

Telecommunications Consultants India Limited

Videsh Sanchar Nigam Limited

Mahanagar Telephone Nigam Limited

Indian Telephone Industries Ltd.

Hindustan Teleprinters Limited

Telecom Factories

Centre for Development of Telematics

Wireless Planning and Coordination Wing.

Wireless Planning and Coordination Wing (WPC) is the national Radio Regulatory Authority which works in close coordination with the wireless user departments. It assigns Radio Frequencies, issues operating licences for government and non-government agencies and ensures planned and coordinated location of Radio Transmitting and Receiving Stations. The Wing acts as a nodal agency in respect to International Telecommunication Union (ITU), Geneva including its permanent organs and Asia Pacific Telecommunity, Bangkok.

The Wireless Monitoring Organisation ... network of Monitoring Stati... to the W.P.C.

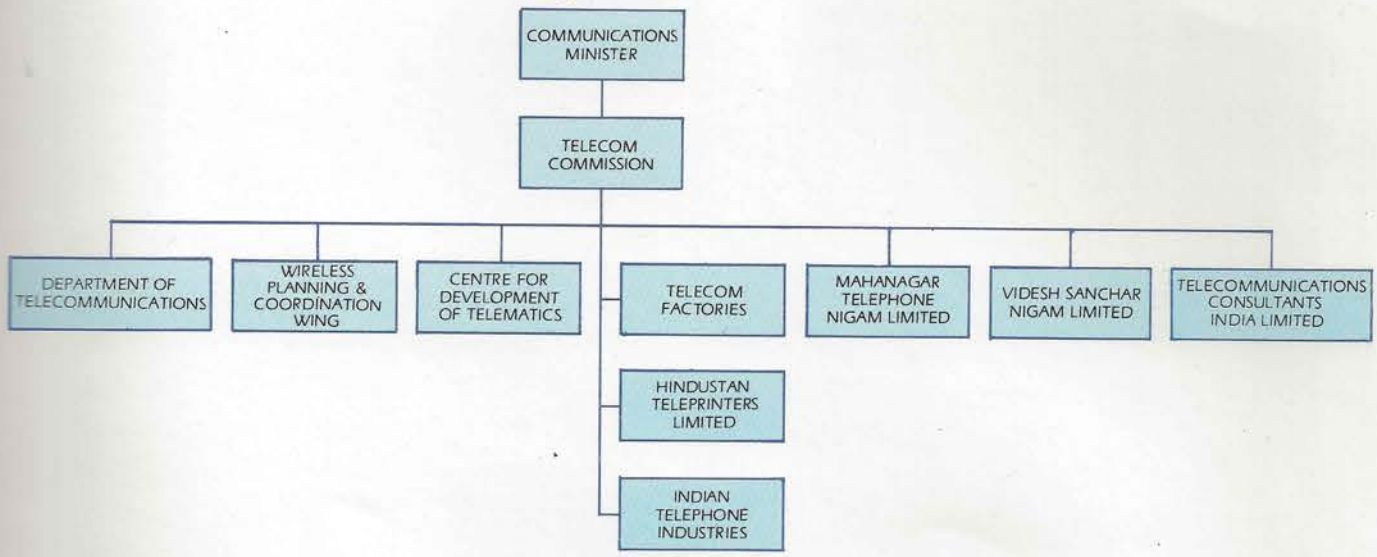
Achievements :

Coordination effected in respect of INSAT II A, II B & II C and INSAT (ID) satellite systems.

— Frequency assignments in respect of Indian Remote sensing satellite (IRS) and stretched Rohini Satellite Services (SROSS) processed.

— Coordinated agreement... Sweden, U...

Organisation



Wireless Planning and Coordination Wing.

Wireless Planning and Coordination Wing (WPC) is the national Radio Regulatory Authority which works in close coordination with the wireless user departments. It assigns Radio Frequencies, issues operating licences for government and non-government agencies and ensures planned and coordinated location of Radio Transmitting and Receiving Stations. The Wing acts as a nodal agency in respect to International Telecommunication Union (ITU), Geneva including its permanent organs and Asia Pacific Telecommunity, Bangkok.

The Wireless Monitoring Organisation with a vast network of Monitoring Stations, provides field support to the W.P.C. Wing in implementing national and international radio regulations. These stations also carry-out measurement of technical parameters of various radio emissions and investigate complaints of harmful interference to authorised radio emissions. There are units to carry-out physical inspection of the licensed wireless stations. Besides these units, this organisation maintains radio noise survey units for measurement and effective suppression of radio noise.

Achievements :

Coordination effected in respect of INSAT II A, II B & II C and INSAT (I D) satellite systems.

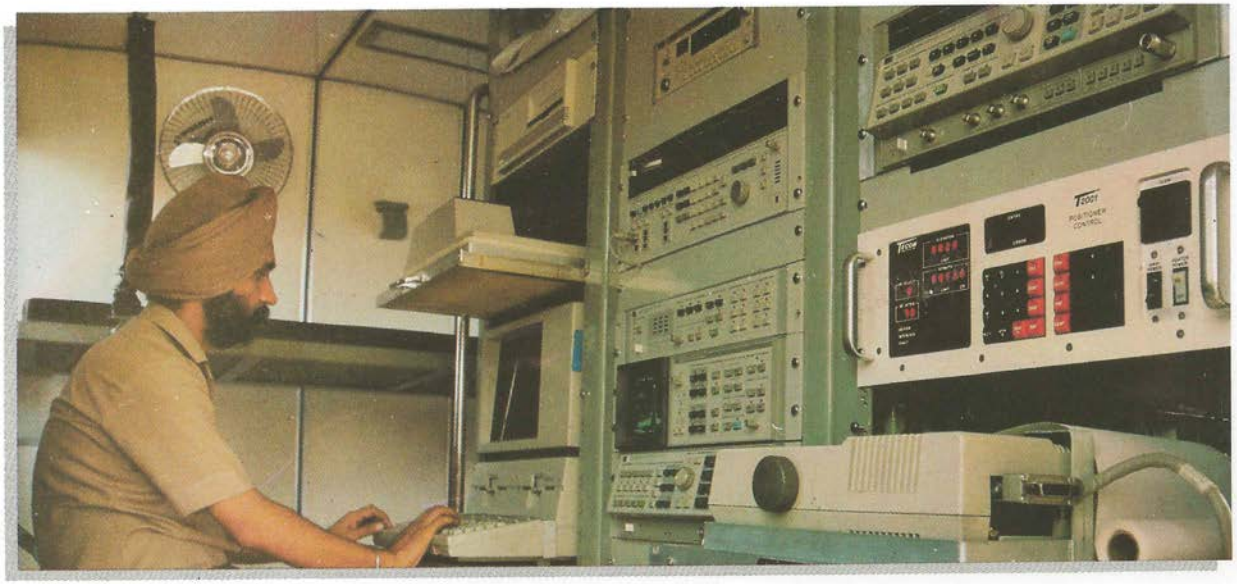
— Frequency assignments in respect of Indian Remote sensing satellite (IRS) and stretched Rohini Satellite Services (SROSS) processed.

— Coordinated agreements between Japan, USA, Sweden, USSR, Baharain, Bruselles and Cuba for SROSS II.

— Advance Publication of Information (API) circulated for POLAR Satellite Launch Vehicle (PSLV)

— Microwave Monitoring Mobile Terminals at Bombay, Calcutta, Delhi and Madras measured on radar, LOS microwave links for mutual compatibility.

— conducted proficiency examinations on Radio Telegraphy and Radio Telephone.



Centre for Development of Telematics

C-DOT

Centre for Development of Telematics (C-DOT) is the Telecommunications Research Centre of the Government of India. The centre is engaged in designing and developing a family of digital switching systems for diverse applications in rural, urban and metropolitan areas. The C-DOT technology has been uniquely tailored for Indian conditions–low telephone density, high-traffic, extreme-temperatures, irregular power supplies, dust and tropical climates. This makes C-DOT technology ideal for other developing countries which have similar environmental conditions.

The centre was set up in August, 1984 with the objective of:

— developing sophisticated telematics technology and products, indigenously, in the area of switching and transmission;

— digitising India's telephone network in order to improve overall service; and

— preparing for the Integrated Service Digital Network (ISDN) for the future.

Methodologies:

C-DOT provides necessary focus and base for telematic technologies by:

— Pooling talented human resources nation-wide

— Having integrated approach to technology development by indigenous design, acquisition, absorption, utilization, diffusion, transfer, purchase, licence etc.

— Providing training and laboratory facilities for development of additional human resources

— Piloting production facilities to translate design into production through diffusion and diversi-fication of technologies to ancillary industries, national institutions, universities & business houses

— Accomplishing Science & Technology Missions based on national priorities

A band of 450 young, dynamic engineers and professionals are helping C-DOT in achieving its goals.

Achievements :

— C-DOT's product range is configured from 128 ports to 40000 ports and is characterised by the commonality in hardware, software, packaging, documentation, training, installation, operation, maintenance features and facilities.

— Technology for the 128 ports PBX and RAX has been transferred to 48 Indian manufacturers. Today more than 2000 PBXs and 500 RAXs are in the field.

— Technology for 512 port MAX expandable upto 1500 ports by concentration has been transferred to 9 Indian manufacturers and over 100 systems are already in the field.

— The larger systems are under field trial and have been performing satisfactorily.

— Technology for manufacturing.

i single channel VHF systems,

ii 10 channel digital VHF systems,

iii 2/15 shared radio systems,

iv 8 mb/s MUX and

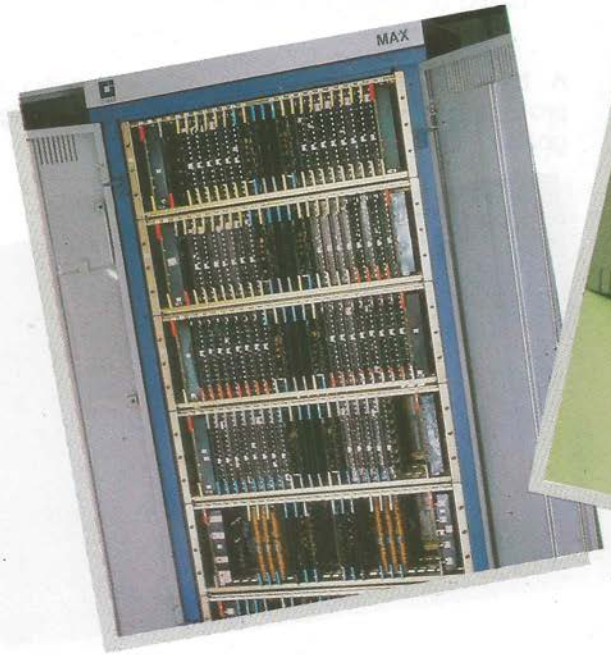
v 32 mb/s MUX

vi Transmission products has also been transferred to a number of manufacturers.

Future Plans :

C-DOT is to design & develop a family of Digital Electronic Switching Systems for a variety of telecommunication applications—Local, Trunk, Tandem and a combination of these for Rural, Urban and Metropolitan areas.

C-DOT is also going to develop technology for ISDN thus ushering in the information society of tomorrow.



Telecom Factories

Four Telecom Factories located at Bombay, Calcutta, Jabalpur and Bhilai manufacture a wide variety of equipment like DP Boxes, CT Boxes, Stalks, C.D. Cabinets, Microwave Towers, Manual Trunk Boards, Switch Boards, Coin Box Telephones etc. These factories employ 7,591 staff including 6,143 industrial workers.

The Telecom Factories (T.F.) were set up to meet the ever-growing demand of telecom equipment as well as to keep pace with the advancement of technology. By boosting indigenous production, the factories help India in achieving self-reliance in telecommunications technology.

With the view to further increase the production volume of the factories, various modernisation, expansion and diversification programmes have been taken up. Some of the new production units involving technical collaboration with reputed firms in Germany, Italy, U.K. and Japan have been set up as under:-

1. Modern mechanised foundry at Kharagpur costing about Rs. 12 crores for the manufacture of sockets, saddles of sorts, BATs etc. with a capacity of 12500 tonnes per year augmentable to 16000 tonnes per year. The commercial production has already started.

ii. Modern integrated tube making plant at Telecom. Factory, Richhai (Jabalpur) in replacement of the existing Plant. The project costing about Rs. 8 crores is for manufacture of Telephone/Telegraph poles. The commercial production has since started.

iii. Modern Galvanising Plant at Telecom Factories at Gopalpur and Jabalpur has been installed and the production has started.

iv. Manufacture of modern new design C.T. Boxes at T.F. Calcutta. The plant has been set up in collaboration with M/s. Krone, West Germany for production of 25000 Nos. C.T. Boxes per year. Supply of the C.T. Boxes has already been started and the production target is 30,000 Nos.

v. Manufacture of C.T. Boxes at Telecom Factory Bombay. Another collaboration with M/s Krone, West Germany has been made to establish a manufacturing unit of C.T. Boxes—disconnection type at T.F. Bombay. This unit is also having the capacity for production of 25000 Nos. of C.T. Boxes per year. Production has since been started with effect from March 1989.

vi. STD Pay Phones at Telecom Factory, Bombay. A collaboration agreement with M/s Tamura, Japan has been made to establish a manufacturing unit for production of STD pay phones at T.F., Bombay.

With a view to increasing the volume of production commensurate with the demand and to build up competition in quality, price and delivery, State Corporations and other public/private sector units are also being encouraged for production of telecom equipment. The policy will not only bridge the demand-supply gap but also boost up the economy and employment potential.

Hindustan Teleprinters Limited (HTL) is manufacturing various telecommunication equipments like printers in the field of telex/text/data image and other digital forms of communications besides other allied electronic products. The Company has already supplied over 1.3 lakh teleprinters and ancillary equipment to the DOT, Defence, Railways, Civil Aviation, News-Agencies, Public and Private sector organisations.

HTL was set up in December, 1960, at Madras, to manufacture teleprinters and other ancillary equipment for P & T's Telecom Network, in collaboration with M/s Ing. C. Olivetti of Italy. Till 1986, the company was the only manufacturer of Teleprinters in the country. From the position of manufacturer of a single product, the Company has steadily switched itself into a multi-product manufacturer. With the new thrust on modernisation and expansion of telecom network in the country, the Company is emerging as a leader in the area of 'Messaging' products.

Achievements :

The Company has established production facilities for the manufacture of Electronic Teleprinters from early 1986 in collaboration with M/s SAGEM of France thereby phasing out the manufacture of Electro-mechanical teleprinters. The licensed capacity for Electronic Teleprinters is 8000 for which the installed capacity is expected to be reached by 1991. After completing the SKD/CKD stages, the Company is implementing the indigenisation process and proposes to achieve 72% indigenisation soon. The Company is expanding its production capacity to cater to the increasing demands of DOT by taking up Broad Banding licence to include the capacity of 8500 nos. of Electro-mechanical Teleprinters. Out of total of 15,273 Electronic Teleprinters manufactured so far, 5807 ETPs were produced in 1989-90. This includes 3062 nos. of TX 30 Roman/Devnagari Bilingual machines and the balance TX30 Roman machines, LP3/5 and Tape Readers.

Financial Results:

— Capital employed increased from 2108 lakhs in 1987-88 to Rs. 2168 lakhs in 1988-89.

— Revenues increased from 1973 lakhs in 1987-88 to Rs. 2801 lakhs in 1988-89: a good jump of 42%.

— Reserves and services increased to Rs. 1009 lakhs in 1988-89 from Rs. 911 in 1987-88.

— Networth increased from Rs. 1653 in 1987-88 to Rs. 1009 lakhs in 1988-89.

Future Plans:

— Manufacturing Electronic Teleprinters in Tamil/Roman languages in collaboration with Anna University

— Production of higher speed Data Modems

— Diversification into Data Communication and office automation

— Developing system designs and rendering consultancy services on setting up manufacturing units for electronic equipment.

Indian Telephone Industries (ITI) manufactures full range of telecommunication equipment which includes all types of telephone instruments, Digital electronic and Electro-mechanical switching systems, Electronic Telex exchanges, Digital Multiplex equipment, Microwave Radio equipment, Communication equipment for Defence and Railways, Satellite earth station equipment; Fibre Optic transmission equipment, Computer aided Design equipment for LSI Design etc.

ITI-India's first Post-Independent Public Sector Undertaking was set up in 1948 to manufacture simple telephone instruments and strowger exchanges with a view to achieving self-reliance in the communication field. Over the years, ITI with its corporate office at Bangalore has grown into a giant undertaking with manufacturing units at Srinagar, Naini, Rae Bareli, Palghat and Mankapur. ITI now produces not just telephones but total telecom networks.

ITI is headed by CMD and each of the six units are controlled by Directors/General Managers. The production units are manned by well qualified and talented engineers and scientists who are capable of designing, developing and manufacturing modern telecom equipment tailored to meet specific needs. R & D Divisions at Bangalore and Naini are two of the best telecom research establishments in the country, having advanced facilities such as Hybrid Micro-Circuit Lab, largescale Integrated Circuit Lab, Environmental Lab and Computer aided design Centre. The total workforce of the company is 32,000 spread over all the six production centres.

Achievements :

— ITI has executed assignments abroad spanning over 40 countries. These include Kenya, Uganda, Tanzania, Yemen, Sri Lanka, Nepal, England, Australia, Singapore, Bhutan, UAE, Jordan and others.

— The product range has undergone a dramatic change from ordinary telephones to modern optic and satellite communication systems and the production capability includes;

* Telephone instruments-all types
* Electromechanical Switching Systems.
* Electronic Main Automatic and Trunk Automatic Exchanges.
* Electronic Telex Exchanges
* PCM Systems
* Microwave radio relay systems
* Military Communication equipment
* Railway control and Communication equipment
* Satellite Earth Station equipment
* Supervisory Control and Data Acquisition (SCADA) systems
* Small Capacity Digital Rural Exchanges
* EPABXs
* Computer Aided Design (CAD) systems for PCB and LSI designs.

Financial Results :

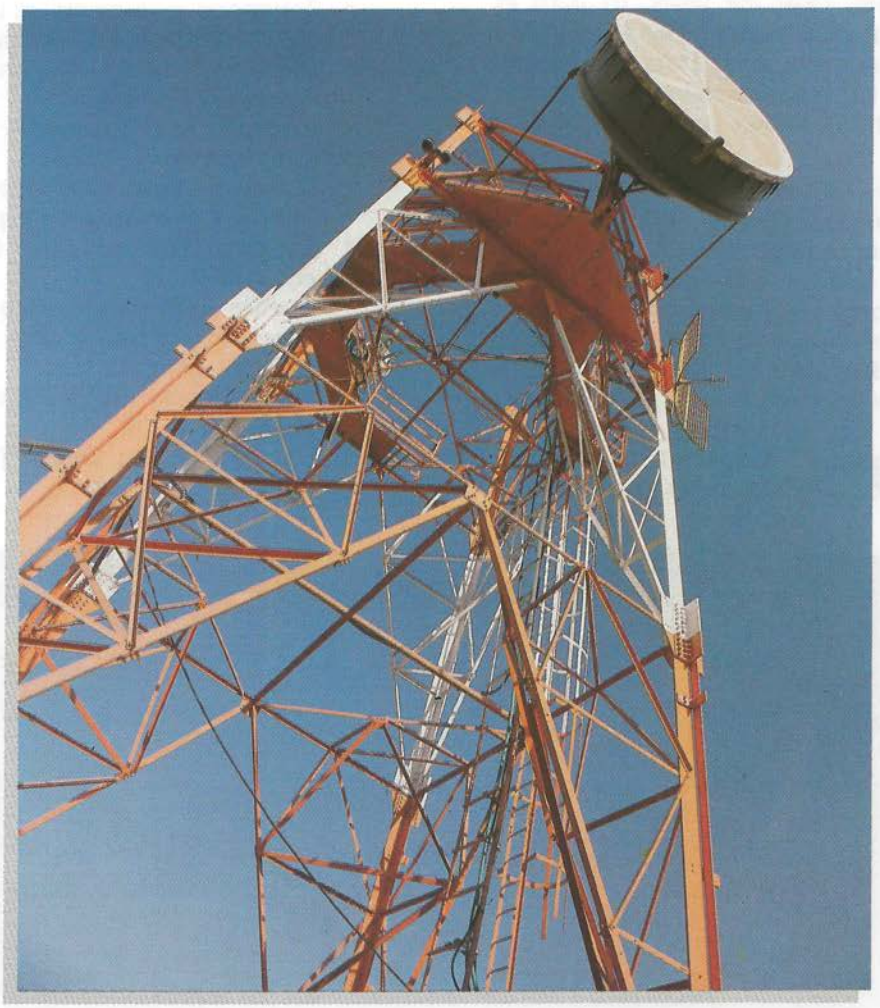
Some of the financial highlights as in 1989-90 are:

— Paid up Capital	Rs. 88 crores
— Turnover	Rs. 959 crore
— Value of Sales & Services	Rs. 959 crores
— Value of production Services	Rs. 1018 crores
— Operating Ratio	1.92
— Dividend	6%

Future Plans :

ITI is entering into the following new areas of production in phases :-

— Digital Microwave Systems
— Digital Coaxial Systems
— Optical Communication equipment
— Micro-Earth Stations for Data Communication
— Digital UHF Systems
— Packet Switching and ISDN (Integrated Service Digital Network)
— Office Automation Systems.



Mahanagar Telephone Nigam Limited (MTNL) runs the gigantic and complex telecom networks of the twin metropolis of Delhi-the national capital and Bombay-the commercial capital of India. The Nigam has necessary functional autonomy, flexibility and management focus to expedite telecom development, improve customer satisfaction and position telecom infrastructure of the metros for the latest technology, products and services.

MTNL was set up in April 1986 to manage, control and operate Delhi & Bombay Telephone Network so as to:

- upgrade the quality of telecom services at par with international standards;
- build a high degree of customer confidence through quality and reliability of services;
- expand telecom network to clear-up the huge waiting lists;
- increase accessibility by providing a larger number of Local and STD Public Call Offices;
- provide new telecom services like Facsimile, Videotex, Teletex, Electronic-Mail, Radio-Paging and Cellular Mobile Radio etc; and
- raise necessary financial resources for the developmental needs of MTNL and Department of Telecommunications.

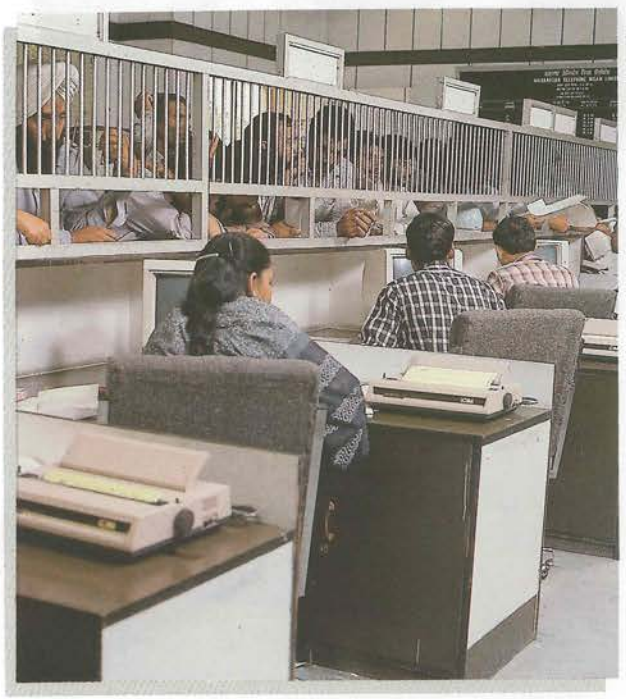
Achievements:

Since 1986, each year of operation has been eventful in terms of completion of set tasks and public reposing greater confidence in MTNL. The Nigam's dedicated workforce of about fifty thousand employees has been able to bring about allround improvement particularly in the sphere of customer satisfaction, record new connections, decreasing fault-rates and increasing call success-rates.

- Record number of new telephone connections given-1.66 lakhs in Delhi and 2 lakhs in Bombay.
- Waiting list down to 8 years from an average of 15 years.
- Fault rate reduced to a low figure of 19%
- Call completion peaked to 98.8% for local calls and 80% for STD calls.
- Push Button Telephones introduced extensively.
- Customer service centres opened to provide single-window service in selected areas.
- Telecom Bureaux opened to provide local telephone, Telex and Fax services at one point.
- New modern services like Mobile Radio Telephone, Facsimile and Radio Paging introduced.
- 5,016 new public call telephones installed.
- Telex lines increased by 16,327–9,592 in Bombay and 6,735 in Delhi.

This has been achieved by:

- streamlining systems and procedures;
- reducing costs;
- computerisation of various customer services;
- increasing focus on technology;
- cordial customer interaction;
- customer focus;
- human resource development;



Financial Performance :

Profitability, the universal standard of good management and objective instrument of measuring performance has constantly been on the upswing.

- Operating ratio dipped from 57.63% to 47.85% in the last four years despite extensive network expansion.
- Revenue increased from Rs. 541 crores in 1986-87 to Rs. 1,047 in 1988-89.
- Profits gone up from Rs. 137 crores in 1986-87 to Rs. 392 crores in 1988-89.
- Networth grown by Rs. 215 crores between 1986-87 and 1988-89.
- Record Dividend of Rs. 84 crores; the highest amongst all public sector undertakings is being declared continuously for the last three years.
- Sale per employee gone up from Rs. 81,807 to Rs. 1,56,356 in 1988-89.

Future Plans :

MTNL has made the following dynamic plans for up-gradation of its network for maximum customer satisfaction and confidence.

- Induction of PCM and Optical Fibre Systems for efficient and fault-free telephone services.
- Provision of new services like; changed number announcement, Voice-Mail/Audio, Fax, Videotex, Electronic Mail etc.
- Large scale computerisation covering commercial working, Connection System, Project Management, Monitoring, Control, Finance and Accounts, Personnel Information System, Materials Management System.
- Provision of Local Area Network (LANs) of computers.
- Large scale ducting to reduce fault-rate.
- Installation of Automatic Message Accounting Equipment to reduce billing complaints.
- Use of highly reliable materials like; improved DP box with IDC module, copper coated steel drop-wire, high size jelly-filled cables etc.
- Upgradation of the out-door plant network where necessary.

Awards :

Judging by the vital growth indices registered during the maiden year 1986-87, the Bureau of Public Enterprises declared MTNL as one of the top performers amongst all the Public Sector Undertakings in the country. In recognition of this outstanding achievement, MTNL was awarded the prestigeous "Excellence in Performance Award" which was presented by the Prime Minister on 26th July, 1989. Through consistent efforts, MTNL is ushering in an "Information age" by making both qualitative and quantitative improvements in its services at par with the best international standards.

Videsh Sanchar Nigam Limited

Videsh Sanchar Nigam Limited (VSNL), provides international telecommunication services and functions in close coordination with the Department of Telecommunications and Mahanagar Telephone Nigam Ltd.

The Nigam was formed in April 1986 to manage, operate and develop international communication services in India. VSNL operates principally through three main gateway centres, Bombay, New Delhi and Madras and a fourth operational centre in Calcutta. It has computerised telephone, telex and telegraph switching exchanges at Bombay, New Delhi and Madras. Similar facilities are being provided in Calcutta as well. All the VSNL Gateways are mesh connected through direct national telecom links.

The international telecommunication circuits are derived from communication satellites (70%) of the INTELSAT and the wide band submarine (30%) telephone cables across the Arabian Sea and Bay of Bengal. VSNL has four satellite Earth Stations at Arvi, Dehradun, Bombay and Bangalore. It operates two submarine telephone cable systems one linking Madras to Kuala Lumpur in Malaysia, called the Indian Ocean Commonwealth (IOCOM) Cable System and the other linking Bombay to Fujairah, in UAE called the Gulf Cable System.

Major international telecom services provided by VSNL include; Telephone, Telex, Television, Public Telegram, Packet Switched Data Service; Intelsat Business Service, Telex Mail Box, Satellite Communication link to Ships, Radiophoto, Bureaufax, Voice-Cast (Programme Transmission), Leased Teleprinter and Voice Grade Data Circuits, Teleconference, Meteorological Broadcasts, Press Broadcasts etc.

Achievements :

Since the inception of the Nigam there has been remarkable improvements in services: new linkages, new services, decreasing fault rate and increasing call completion rates and better customer satisfaction. Some of the highlights are:

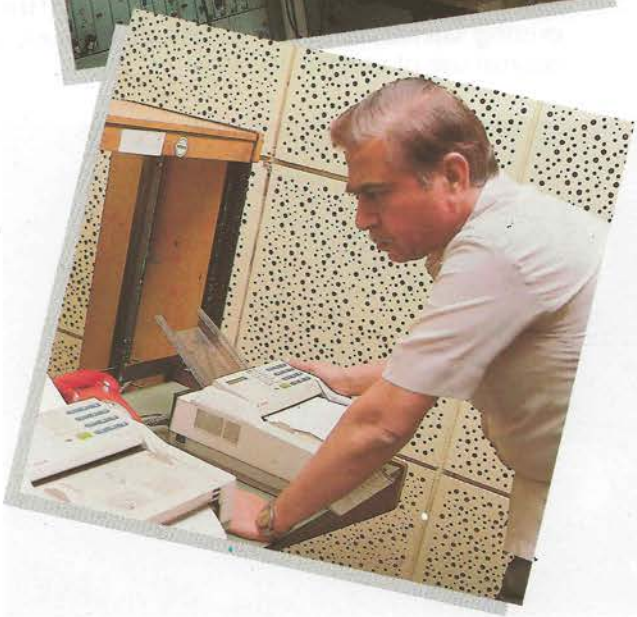
- A total number of 2040 international telephone and 1200 telex circuits respectively are operating against 1146 and 1134 respectively in 1986 when VSNL was incorporated.
- International Subscriber Dialled Telephone Service is available to 177 destinations in the world from 900 cities of India.
- Telex Mail-Box for incoming international telex traffic as well as Store & Forward International telex services have been introduced.
- T-Fax Services are now available to telex subscribers who do not have a fax machine.
- New Bureaufax service, operated from all the 4 gateway centres in India are now available in the country, whereby documents or pictures, black & white, can be sent or received to and from 34 foreign Telecom Administrations and subscribers in 177 countries.
- Gateway Packet Switch Data Network has been extended to New Delhi, Madras, Bangalore, Hyderabad and Pune by commissioning PAD cum Switches, which connect 4000 databases all over the world.
- Roof Top Earth Station at Bombay provides direct single-hop satellite link through 359 degree Atlantic Ocean Region Satellite instead of the existing satellite/cable link to USA thus ensuring optimal use of satellite capacity.

— Stored Programme Controlled Message Retransmission System has been commissioned at New Delhi for speedy transmission of international telegraph messages.

Financial Results :

VSNL is enjoying excellent economic climate in as much as :

— Revenues increased from Rs. 1597.2 lakhs in 1985-86 to Rs. 2905.6 lakhs in 1988-89.
— Profits increased from Rs. 1322.9 lakhs in 1985-86 to Rs. 1388.9 lakhs in 1988-89
— Networth grown by Rs.1292.6 lakhs from inception year 1986 to March, 89.
— Dividend jumped from Rs. 60 million in 1986-87 to Rs. 120 million in 1988-89.



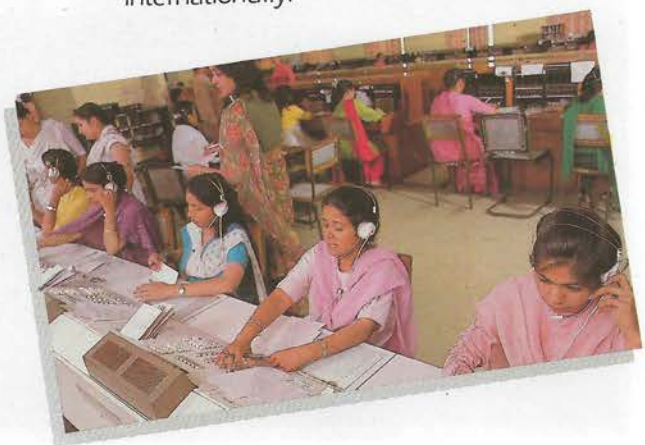
Research and Development :

R & D Wing, activities include;

— Software Development for Intelecom Bureaux Service
— Electronic Mail Service
— Voice Mail-Box Facility
— Directory Information System for telephone, telex, data and bureaufax systems.

Future Plans :

— Complete use of Digital Technology in Satellite Communication by the year 2000.
— A variety of new international telematic services as under shall be made available in phases by the turn of the century :
  i. Ship-to-Shore and shore to ship telephone, telex and data services.
  ii. Telex Mail-Box facility now available on experimental basis shall become widely operational.
  iii. Voice Mail-Box
  iv. Data Links through dedicated satellite stations providing real-time high speed data links between India and the West.
  v. Video – Conferencing to international destinations.
  vi. International Telex Bureaus providing international services in metros.
  vii Point to Point and Multipoint Data Services utilising very small Aperture Terminals.
  viii Point to Point and Point-to-Multipoint Laser and Radio Links facilitating subscriber's connection to international networks using accurate frequency spectrums.
  ix Electronic Mail for international use.
  x Teletex and Value added services using wider bandwidth and packet switched network internationally.



Telecommunications Consultants India Limited

Telecommunications Consultants India Limited (TCIL), is a multidisciplinary consultancy organisation, proficient in the full range of consultancy services: design, engineering and quality control, human resource development, managerial support and transfer of technology in every facet of telecommunications.

Set up in 1978, by the Government of India, under the Ministry of Communications to provide consultancy in telecommunications, TCIL has registered an impressive growth within a short span of time and has achieved an international status as one of the leading consultants in the world dealing in total communications technology.

Being the offshoot of the Indian Department of Telecommunications, TCIL is eminently placed to freely draw upon the huge pool of technical manpower operating the vast Indian Telecommunication network which is the biggest in Asia. With this forte the company has been able to project India as a high-tech supplier exuding immense confidence, competence and capability.

With the vast experience gained in undertaking a variety of projects, both domestic and foreign, TCIL is in a position to offer a complete package of consultancy services from concept to completion in

- Local Telephone Systems,
- Transmission Systems,
- Computer & Communications,
- Office Automation,
- Industrial Consultancy,
- Architectural design/Civil Construction work,
- Management Consultancy
- Training & Manpower Development.

TCIL has to its credit a record of achievements in successful execution of a number of major contracts on a turnkey basis providing appropriate technology at competitive costs. TCIL's present scenario of activities encompasses both developed and developing countries like Australia, Bangladesh, Bhutan, Cameroon, Chad, Iraq, Jordan, Kuwait, Maldives, Mozambique, Netherlands, Nigeria, Oman, Saudi Arabia, Somalia, Sri Lanka, Switzerland, U.A.E., U.S.A., Y.A.R., Zimbabwe etc.

At home, 56 organisations are availing TCIL's hi-tech services, prominent being Oil India, ONGC, SAIL, GAIL, NALCO, Coal India Limited, Narmada Control Authority, Neyveli Lignite and Damodar Valley Corporations, Maharashtra & Gujarat Electricity Boards etc. For the Department of Telecommunications a three node Public Switched Data Network (PSDN) interlinking Delhi, Bombay and Madras has been set up on experimental basis.

TCIL has done the computerisation of telecom administration in many cities of India. Telecommunication system for the prestigious H.B.J. pipeline project has also been engineered by TCIL.

Financial Scenario :

TCIL, has performed exceptionally well on the financial scene as seen from the vital indices; earned a profit of Rs. 11.30 crores before tax during 1989-90 as against Rs. 7.64 crores in the previous year.

— Profit before tax during 1989-90 was Rs. 11.30 crores against Rs. 7.64 crores in the previous year-a credible increase of 47.9%.

— Turnover increased from Rs. 71.11 crores to Rs. 106.25 crores between 1988-89 and 1989-90; a commendable growth of 49.4%

— Reserve and Surplus rose to Rs. 45.12 crores in 1989-90 from Rs. 36.61 crores in the previous year.

— Dividend paid was Rs. 18 lakhs in 1989-90.

— Foreign exchange repatriated in India was Rs. 3.84 crores during 1989-90.

Joint Ventures :

TCIL has raised joint-venture companies with various outside bodies as under for the development of various facets of telecommunications :

— Telecommunications Consultants Nigeria Ltd., (TELCON) in collaboration with the Government of Nigeria. Although the company is earning profits yet its activities have suffered a set back due to economic conditions in Nigeria.

— Tamilnadu Telecommunications Ltd. (TTL) in collaboration with Tamilnadu Industrial Development Corporation. TTL has already set up a factory for manufacturing jelly filled cables which shall go into production by 1991.

— Intelligent Communication Systems India Ltd. (ICSIL) in collaboration with Delhi State Industrial Development Corporation.

ICSIL is producing and marketing PC based messaging terminals—"Telebridge" and other communication related peripherals.

— TCIL-Bell South Ltd. (TBL) in collaboration with Bell South USA. The company was set up in June '89 and is engaged in developing software for telecom applications.

Future Plans :

— Joint-Venture in Netherlands in collaboration with Nepostel to service the software markets of Netherlands and E.E.C. countries.

— Exploring overseas markets for exporting telecom equipment like telephone instruments, cables EPABXs, RAXs etc.

Awards :

The Bureau of Public Enterprises adjudged TCIL as the best company in consultancy and contracting field. Accordingly. "Excellence in Performance Award" was presented to the Company by the Prime Minister of India on July 26, 1989.

Also TCIL has won the Economic Times & Harvard Business School Association Award for Excellent Corporate Performance.

Department of Telecommunications (DOT)

DOT plans and operates all local and long distance domestic networks and services and supplies equipment to residential and business customers.

Wireless Planning and Coordination Wing (WPC)

WPC assigns Radio Frequencies, issues operating licenses for Government and non-Government agencies and plans radio transmitting and receiving stations.

Centre for Development of Telematics (C-DOT)

C-DOT pools nation's wide human resources in telecom and designs and develops digital switching systems for diverse use in rural & urban areas having low and high density traffic.

Telecom Factories (TF)

TF spread over the country, indigenously produce various telecom equipments, thereby achieving self-reliance in meeting the growing needs of telecommunications in tune with the latest developments in technology.

Hindustan Teleprinters Ltd., (HTL)

HTL focuses on customer needs for terminal equipment like electronic teleprinters, personal computers, modems, fax cards and audio teleconferencing bridges.

Indian Telephone Industries (ITI)

ITI is the principal telecom equipment supplier. It manufactures wide range of telecom equipment that include switching and transmission equipment, telephone instruments, VSATs and special equipment for the Railways and Defence.

Mahanagar Telephone Nigam Ltd. (MTNL)

MTNL provides telecom services in the metropolitan centres of Delhi and Bombay.

Videsh Sanchar Nigam Ltd., (VSNL)

VSNL is responsible for the country's international networks and services. Besides providing direct dialling to over 150 countries, it provides telex, fax and packet data services to various parts of the world.

Telecommunication Consultants India Ltd. (TCIL)

TCIL markets DOT's knowledge and experience abroad to PTTs, international organisations and corporations. It undertakes turn-key contracts, advises plans, constructs and manages overseas telecom network. Besides TCIL also enters into joint ventures in other countries.

सत्यमेव जयते

Telecom Commission

Sanchar Bhawan, 20, Ashoka Road, New Delhi 110 001 INDIA
Phone: + 91 (11) 3032870, + 91 (11) 3716767 Telex: 031-61740 DVT IN Fax: + 91 (11) 3782344

Published by Rajesh Tewari

BIGDOT/MAYAR