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Introduction.

A. Objectives.

Department of Information Technology (DIT), in the Ministry of Communications and Information Technology is inter-alia responsible for formulation, implementation and review of national policies in the field of Information Technology. All policy matters relating to silicon facility, computer based information technology and processing including hardware and software, standardisation of procedures and matters relating to international bodies, promotion of knowledge based enterprises, internet, e-commerce and information technology education and development of electronics and coordination amongst its various users are also addressed by the Department.

Aforesaid objectives are being achieved through three pronged strategy, namely-

- Supporting technology development in the field of IT.
- Setting up of critical infrastructure for development of IT.
- Providing enabling policy environment for the growth of IT industry.

B. Following are the business allocated to the Department of Information Technology:

1. Policy matters relating to information technology; Electronics; and Internet (all matters other than licensing of Internet Service Provider).
2. Promotion of internet, IT and IT enabled services.
3. Assistance to other departments in the promotion of E-Governance, E-Commerce, E-Medicine, E-Infrastructure, etc.
4. Promotion of Information Technology education and Information Technology-based education.
5. Matters relating to Cyber Laws, administration of the Information Technology Act 2000 (21 of 2000) and other IT related laws.
6. Matters relating to promotion and manufacturing of Semiconductor Devices in the country excluding all matters relating to Semiconductor Complex Limited (SCL), Mohali; The Semiconductor Integrated Circuits Layout Design Act, 2000 (37 of 2000).
7. Interaction in IT related matters with international agencies and bodies e.g. Internet for Business Limited (IFB), Institute for Education in Information Society (IBI) and International Code Council- online (ICC).
8. Initiative on bridging the Digital Divide: Matters relating to Media Lab Asia.
9. Promotion of Standardization, Testing and Quality in IT and standardization of procedure for IT application and Tasks.
10. Electronics Export and Computer Software Promotion Council (ESC).
11. National Informatics Centre (NIC).
12. Initiatives for development of Hardware/Software industry knowledge based enterprises, measures for promoting IT exports and competitiveness of the industry.
13. All matters relating to personnel under the control of the Department.

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C. Schemes/programmes being implemented by Department of Information Technology.

Various schemes/programmes of the Department are implemented directly by the Department of Information Technology and through the organisations / institutions under its jurisdiction. To make the technology robust and state-of-the-art, collaboration of the academia and the private / public sector is also obtained. Major schemes/projects being/to be taken up by the Department are as under:-

National Informatics Centre (NIC), Standardisation, Testing and Quality Certification (STQC), Society for Applied Microwave Electronics Engineering and Research (SAMEER), Micro-electronics and Nano-technology, Technology Development Council (TDC) including Intellectual Property Rights Promotion Programme, Convergence, Communication & Strategic Electronics, Component and Material Development, Centre for Development of Advanced Computing (C-DAC), Electronics in Health and Tele-medicine, Technology Development for Indian Languages (TDIL), , E-commerce and Info Security, IT for Masses(Gender, SC/ST), Media Lab Asia, Export Promotion - Software Technology Parks of India(STPI) & EHTP, Digital DNA Parks, Cyber Security including Cert-in, IT Act / Certification and Network Security, ERNET, Promotion of Electronics/IT Hardware manufacturing, Department of Electronics Accredited Computer Courses (DOEACC), Manpower Development, Special Manpower for VLSI Design, Facilitation of setting up of Integrated Townships and E-Governance including Community Information Centres (CICs) etc.

D. Organizational set-up.

The Department of Information Technology in the Ministry of Communications and Information Technology (MC&IT) is headed by Secretary who assists Hon'ble Minister/Minister of State for Ministry of Communications and Information Technology in carrying out the business allocated to Department of Information Technology. Department has various groups viz. Research and Development (R&D) in IT, R&D in Electronics, R&D in Convergence, Communications and Broadband Technologies, e-Commerce and Cyber Laws, International Co-operation and Industrial Promotion, e-Governance Programme, Language Computing, e-Infrastructure, e-Learning, Coordination, Financial Management, Personnel and Support Groups.

The department has two attached offices – (i) National Informatics Centre (NIC) and (ii) Standardisation, Testing and Quality Certification (STQC) and two statutory organizations – (i) Controller of Certifying Authority (CCA) and (ii) Cyber Regulation Appellate Tribunal (CRAT). The department also has seven Autonomous societies under its control namely: (i) Society for Applied Microwave Electronics Engg & Research (SAMEER); (ii) Centre for Development of Advance Computing (C-DAC); (iii) Software Technology Parks of India (STPI); (iv) Department of Electronics Accredited Computer Courses (DOEACC); (v) Centre for Materials for Electronics Technology (C-MET); (vi) Education & Research Network (ERNET) and (vii) Electronics and Computer Software Export Promotion Council (ESC). Besides above, there are three section 25 companies viz. (i) Media Lab Asia, (ii) National Informatics Centre Services Inc.(NICSI) and National Internet Exchange of India(NIXI).

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1. Attached Offices.

1.1 National Informatics Centre (NIC) ;

National Informatics Centre (NIC) is the premier S&T organization of the Department of Information Technology for facilitating the process of e-governance in the country. During the last 30 years, the NIC has scored many firsts in the field of Informatics Development & Networking for Decision Support in the Central Government Departments, 28 State Governments, one National Capital Territory of Delhi and 6 Union Territories, and about 600 District administrations at sub-state level. It is the only organization in India to provide total informatics support to the Ministries and Departments of the Central, State Governments, District Administrations and other Government bodies. Today, NIC has poised itself as main backbone for delivery of e-governance up to grass root level through its countrywide network of skilled and motivated pool of officers. Some of the major national e-governance initiatives in which NIC is playing pivotal role at all the levels are Land Record; Passport; Panchayat; Treasuries; Transport; AGMARKNET (Agriculture Market Network); Commercial Taxes, Vehicle registration, Driving License, e-Post, DACNET (Department of Agriculture & Co-operative Network), DGFT Computerization, India Portal, PAO 2000, CIPA (Common Integrated Police Applications), Property Registration, Courtis Computerization etc.

In order to facilitate e-governance in the Government sector, NIC has been providing Network services (WAN, MAN, LAN), Data Centers, Capacity Building through Human Resources Development, Data Mining and Data Warehousing, total ICT Solutions, Video Conferencing & Web Services, Certification Authority and PKI Services, Internet Domain (**gov.in**) Registrar, Computer Emergency Response Team (CERT) Services, National Disaster Recovery Centre, GIS and Utility Mapping services, Sectoral ICT Plan formulation, ICT projects consultancy.

NIC has the State Informatics Offices in all States and Union Territories and District Informatics Offices at district administrations in the country.

1.2 Standardisation, Testing & Quality Certification (STQC) Directorate;

Standardization, Testing & Quality Certification (STQC) Directorate is a key assurance service-providing agency of the Department of Information Technology in the area of Quality & Information Technology. Through National/ International accreditation and recognition for test services, STQC Directorate has also earned an International reputation and its testing & certification services are being recognized both nationally and globally. Apart from being a major testing & calibration network in the country and primary institution in this field, STQC has also initiated a number of schemes aimed at Exports Promotion, Information Security and Software Quality Engineering. STQC has strengthened its infrastructure and activities in the area of Information Security and Software Testing & Certification.

STQC Directorate is having four Electronics Regional Test Laboratories (ERTLs) and eleven Electronic Test and Development Centers (ETDCs) including Center for Reliability (CFR), Chennai.

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2. Statutory Organisation.

2.1 Office of Controller of Certifying Authorities (CCA);

The Controller of Certifying Authorities (CCA) continues to promote the growth of e-commerce and e-governance through the use of digital signatures. The number of digital signature certificates issued continues to grow and is expected to increase significantly with the launch of e-governance programmes. Initiatives have been taken by the CCA in this respect through coordinated interactions between the e-governance application service providers and the Certifying Authorities.

2.2 Cyber Regulation Appellate Tribunal (CRAT)

Government of India enacted the Information Technology Act, 2000. Section 48 (1) of this Act provides for establishment of one Appellate Tribunal to be known as Cyber Regulation Appellate Tribunal (CRAT). Any person aggrieved by an order made by Controller of Certifying Authorities or by an Adjudicating officer under the IT Act may prefer an appeal before the Cyber Appellate Tribunal having jurisdiction in the matter. This Tribunal is to be headed by a Presiding Officer who is appointed by the Central Government by Notification as provided under Section 49 of the IT Act, 2000.

The Tribunal has started functioning under a Presiding Officer who is a retired Judge of the High Court of Delhi.

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3. Societies/Autonomous Bodies.

3.1 Society for Applied Microwave Electronics Engineering and Research (SAMEER);

SAMEER is a society of the Department of Information Technology with a broad mandate to undertake R&D work in the areas of RF/Microwave Electronics, Electromagnetic Technology and its related areas.

At present SAMEER has three Centres – one each at Mumbai, Chennai and Kolkata specializing in the areas of RF & Microwaves, Communication, EMI/EMC, Antenna & Millimeter wave technology respectively. Since its inception, SAMEER has focused its activities in various areas of microwave engineering and electromagnetic technology and its each center is having specific objective in a particular field. SAMEER has already been working in industry oriented developmental activities on microwave and electromagnetic technology in the light of the globalization policy of the Government of India.

3.2 Centre for Development of Advanced Computing (C-DAC);

Centre for Development of Advanced Computing (C-DAC) is a society of the Department of Information Technology (DIT), carrying out R&D in IT, Electronics and associated areas. Starting from its initial mission on building indigenous supercomputers, C-DAC has progressively grown to build an eco-system and institutional framework for innovation, technology development, skills, delivery plans, collaboration, partnership and market orientation in a number of niche areas of national importance and market relevance in ICT and Electronics.

Through in-house research, technology and product development efforts in collaboration with Academia, Research Labs and Industry in India or abroad, it endeavors to identify promising ideas nurtured building of ideas and competencies convert many of them into practical tools, technologies, products and services to meet the needs of : SMEs and other industrial players in the country; intermediate players; and end-users in Science and Engineering, manufacturing & service sectors, government, health, development and strategic sectors.

The core technology areas that C-DAC deals with include High Performance Computing and Grid Computing, Multilingual Computing, VLSI and Embedded Systems, Real Time and Control Systems, and Professional Electronics, Software Technologies, Cyber Security and Health Informatics. More than a decade and a half of R&D effort of C-DAC in these areas has resulted in several enabling technologies, which form the core of C-DAC's technical strength. These have been further used by C-DAC to develop a wide range of products and solutions, many of which have been successfully deployed and are in use in many key sectors of the economy.

3.3 Software Technology Parks of India (STPI);

Software Technology Parks of India(STPI) is a Society under Department of Information Technology. STPI's main objective has been the promotion of software exports from the country. The main services rendered by STPI for the software exporting community have been, statutory services, data communications services and incubation facilities. STPI has also played a developmental role in the promotion of software exports with a special focus on SMEs and start up units. The STP scheme has been widely successful and the exports made by STP units have grown manifold over the years. Today the exports by STPI registered units are more than 95% of the total software exports from the country.

In view of the fact that datacom connectivity is a critical requirement of software exporters, STPI has been providing this service since inception. STPI provides datacom services specifically to the software exports industry. Provisioning of this service has seen a gradual shift from onsite software development to offshore software development. At a time when the telecom connectivity in the country was not so good, STPI provided the necessary technical infrastructure for the software exports by installing satellite gateways for international connectivity. To overcome the last mile problem and to maximize uptime, STPI has provisioned radio connectivity for the last mile. Over the years, STPI's major revenue source has been its datacom services. STPI has one of the largest bases of satellite gateways. STPI has set up 47 centres across the country**.**

STPI has also been providing incubation facilities for the software exporters, specifically to the SMEs and start up units. The incubation facilities include ready to use built up space with plug and play facilities and other backup resources such as power, DG set, internet enabled workstations etc., which have been very useful for the start-up units and SMEs.

3.4 Department of Electronics Accredited Computer Courses (DOEACC) Society;

DOEACC Society is a society of the Department of Information Technology. It has its own 10 Centres at Aizawl, Aurangabad, Calicut, Chandigarh, Gorakhpur, Imphal, Srinagar/Jammu, Kohima, Kolkata and Tezpur/Guwahati and three Branch Offices at Delhi, Lucknow and Shimla with its Headquarters at New Delhi. DOEACC Society accredits institutes/organizations for conducting courses particularly in the non-formal sector of IT Education & Training. At the same time, it is the only organization engaged in formal as well as non-formal education. It is primarily engaged in the development of industry oriented quality education and training in the state-of-the-art-areas, establish standards to be the country's premier institution for Examination and Certification in the field of IECT.

Society has been making efforts in aligning its activities and those of its Centres towards its main focus area i.e. manpower development in the area of Information, Electronics and Communication Technology (IECT).

The Objective of the Society includes:

- To generate quality manpower and develop skilled professionals in the area of Information, Electronics and Communications Technology (IECT) and allied, by providing world-class education & training and accreditation services.
- To provide continuing support to learners and trainers through active design & development of innovative curricula and acquisition of content aligned with the dynamically changing IECT scenario.
- To establish a quality system of examination and certification that is globally recognized and provides a fair assessment at the competency of students.
- To establish standards in the areas of IECT and to develop markets in the emerging areas.
- To develop entrepreneurs and provide IECT based services to users.

- To encourage and nurture industry academic interaction through inter-disciplinary cooperation amongst Scientists, Technocrats, Administrators and Entrepreneurs.

3.5 Centre for Materials for Electronics Technology (C-MET);

Centre for Materials for Electronics Technology (C-MET) is a Society under Department of Information Technology, established as a unique concept for development of viable technologies in the area of materials mainly for electronics. C-MET is operating with its laboratories at Pune, Hyderabad and Thrissur. C-MET's mission is to develop knowledge base in electronics materials and their processing technology for the Indian industry and become a source of critical electronics materials, know-how and technical services for the industry and other sectors of economy.

The objectives of C-MET are to establish the technology up to pilot scale for a range of electronic materials transfer the same to industry for commercialization; to establish relevant characterization facilities; to undertake applied research activities in the area of its operation; to establish national Data Base on Electronics Materials.

3.6 Education & Research Network (ERNET) India;

Education & Research Network (ERNET), India is a society of the Department of Information Technology. The activities at ERNET India are organized around five technology focus areas: National Academic and Research Network; Research and Development in the area of Data Communication and its Application; Human Resource Development in the area of High-end Networking; Educational Content; and Campus-wide High Speed Local Area Network. All the five areas have contributed significantly in the growth of ERNET India. The innovations and breakthrough achieved through these areas, represent the core strengths of ERNET. ERNET has been working to ensure that end-users enjoy the best experience and satisfaction. The architecture of the Network is designed to deliver broadband value added service and applications like Webcasting, IPcasting, Digital Library and Distance Learning. ERNET India is in a position to connect any institution anywhere in the country on its backbone to share resources and undertake collaborative research and applications. The ERNET Backbone is IPV6 enabled.

3.7 Electronics and Computer Software Export Promotion Council (ESC);

Electronics and Computer Software Export Promotion Council (ESC) is mandated to promote India's exports of Electronics, Telecom, Computer Software and IT Enabled Services. ESC offers a varied set of services to its members for accelerating exports.

Some of the services of ESC are as follows:

- To promote India's electronics, software and IT trade, ESC facilitates participation in Global Trade Shows / Expositions and Conferences etc.
- ESC undertakes Market Research / Studies in major overseas markets.
- For enhancing the brand equity of Indian IT industry, ESC undertakes publicity Campaigns in overseas markets.
- ESC facilitates business interface between Indian and foreign companies through Buyers – Seller Meets, Receiving and Mounting Business Missions and Match – making and Contact Promotion.
- ESC locates new business partners for Indian electronics, computer software and IT companies.
- For facilitating foreign trade, ESC provide on-line facility for Data Search, Information Dissemination and Broadcast using internet and Dial-up facilities.

4. Other Organisations.

4.1 Media Lab Asia (MLA);

Media Lab Asia is a not-for-profit organization under Section 25 of Company Act with a vision of leveraging the information and communication technologies and other advanced technologies for the benefit of the common man.

Media Lab Asia works on the paradigm of collaborative research in the task of developing relevant and sustainable technologies and bringing them to the daily lives of people. Media Lab Asia works with academic and R&D institutions, industry, NGOs and Governments in the endeavor. It has already established research hubs at five IITs at Delhi, Mumbai, Chennai, Kanpur and Kharagpur, IIIT Hyderabad, Byrraju Foundation, All India Institute of Medical Sciences (AIIMS), Sarva Shiksha Abhiyan, National Association for the Blind, AMRITA Vishwa Vidyapeetham, Coimbatore and with more planned in the future. In addition, research, development and deployment projects have been taken up at other institutions. Media Lab Asia is also establishing field test sites near the research organizations and other locations and is working with State and local governments, NGOs, and other organizations in this endeavor.

4.2 National Informatics Centre Services Incorporated (NICSI);

National Informatics Centre Services Inc.(NICSI) is a not-for-profit organization under Section 25 of Company's Acts mainly to promote utilization of information technology, computer communication network, informatics, development of services, technologies, supplementing developments by NIC, promote value added computer and computer communication services, etc. In a way it is an extended arm of NIC for implementing ICT projects of the Government. Many Central and State Government Departments have retained NICSI as their "Total-IT-Solution" provider. NICSI has been making accelerated growth.

4.3 National Internet Exchange of India (NIXI);

The National Internet Exchange of India (NIXI) is a not-for-profit organization under Section 25 of Company's Acts to facilitate handing over of domestic Internet traffic between the peering ISP members. This will enable more efficient use of international bandwidth, save foreign exchange. It will further improve the Quality of Services for the customers of member ISPs, by being able to avoid multiple international hops and thus lowering delays. Four Internet Exchanges Nodes have been operationalised at Noida (Delhi), Mumbai, Chennai and Kolkata and as many as 40 ISPs connected with these nodes.