4.1 Review of Past Performance 2009-10

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Scheme: Micro-electronics & Nano-technology Development Programme **Budget Outlay:** Rs.35.00 crore (Plan) **Objective:** To establish nano-electronics & microelect-ronics base in the country through setting up of centres of excellence, technology development & capacity building through sponsored R&D projects in the area of nanoelectronics, nano-metrology, micro-electronics, MEMS and VLSI design.	(a) **Nano-electronics Centres at IITB & IISc.** **IITB**: Procurement of equipment: 2nos, Process development: 2nos., Manpower to be trained: 200 nos, Publications, patents. **IISc**: Procurement of equipment: 6 nos, Process development: 4 nos, Product develoment:1 no, Man power to be trained :100 nos, Publications b) **Nano-metrology at NPL, New Delhi** - Establishment of optical profiler and DCC Bridge.	It would enable to create a strong R&D base in nano-technology in the country.	1. Commissi - oning of equipments would continue. 2. Work on deliverables would continue. 3. Teaching & Research would continue.	**a) Nano-electronics Centres**: **IITB:** Eqpt. Procured: 8 nos Process developed: 4 nos Publications: 73 nos Patents:8 nos Manpower trained: 573 nos., Technology Transfer: 1no & 1 is in progress. **IISc:** Eqpt. Procured = 7 nos Process developed: 9 nos., Product Dev: 1 no Publications: 98 nos. Manpower trained: 170 nos. **b) NPL:** Established optical profiler. DCC bridge has been installed. Process for providing the calibration service for step height,

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	- Calibration service for 3 parameters i.e. step height, low resistance and low level current. - publications. - copyrights - Manpower to be trained: 50nos. c) **Indian Nano-electronics Users Programme(INUP) at IITB & IISc** **IISC:** Creation of Multimedia center: 1 no Creation of Seminar Hall: 1 no Process development: 2 nos. Manpower to be trained: 60 nos. Familiarization workshops: 2 nos. Hands-on- training workshops: 2 nos. **IITB:** Familiarization workshops: 2 nos. Hands-on- training workshops: 3 nos. Research projects: 3 nos. Manpower to be trained: 100 nos. d) **Development, fabrication, Productionization of ASIC based Digital Programmable Hearing Aid (DPHA) and its Deployment with**	It would further enhance India's emergence as a global destination of VLSI design & embedded		low resistance and low level current is in progress. 5 papers published. One copy right has been obtained. Work for 2nd copyright is in progress. Manpower trained: 70 nos. **c) INUP:** **IISc:** creation of multimedia center and seminar hall is in progress. Process/ Product development: 3 nos. Manpower trained: 105 nos. Familiarization workshop:2 nos Hands-on-training: 2 nos. **IITB:** Familiarization workshop: 2 nos, Hands-on-training:1 no, Research projects: 26 nos. Manpower trained: 457 nos. **d) DPHA:** The processes for fabrication of ASIC prototypes, PCB and enclosure for the Body Worn type DPHA are in progress.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	C-DAC Thiruvananthapuram - ASIC prototypes to be fabricated: 20s - Fabrication of PCB for Body Worn type DPHA: 20-30 nos. - Enclosure fabrication for the Body Worn type DPHA: 20-30 nos.	systems design		Testbenches for DPHA full functionality and code coverage, OPT Functionality, MBIST developed. Both Body Worn (BW) and Behind The Ear (BTE) shell identified and mechanical design carried out. Netlist signed-off. Post synthesis and post route simulation done.
Scheme: Technology Development Council **Budget Outlay:** Rs.32.00 crore (Plan) (includes Rs. 3.00 crore for NER) & Rs.1.50 crore (Compl. EBR) **Objective:** **IT for Industrial Applications** To strengthen local base for R&D/ application in Electronics and IT in the field of Industrial Electronics, Agriculture and Water Resources.	**National Mission on Power Electronics Technology (NaMPET)** • 5th and final industry-academic meet • Field implementation of Renewable Energy Application project • Evaluation and possible	Enhancement of R&D infra-structure and design capability in the area of Power Electronics Technology contributing to design-led Electronics Hardware manufacturing.	Sept./Oct., '09 July, '09 Oct.,'09	5th and final Industry-Academic Meet was held on Oct.22-23, 2009 at Thiruvananthapuram. The first unit is undergoing field trial at WBREDA, Kolkata since beginning of March, 2010 TOT issue has not been taken up

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	technology transfer of Full Spectrum Simulator			yet. More applications are being introduced into the system. TOT issue will be taken up in NaMPET Phase-II.
	• Field installation of high power STATCOM at IT Park, Trivandrum		Oct.,'09	The first unit of the STATCOM has been installed at IT Park, Trivandrum and it is functional.
	• Completion of design and hardware assembly on Railway Application projects		Nov.,'09	Hardware assembly and testing of the traction control system for railway application is in process. This is slightly delayed due to frequent changes in requirements by the user.
	Automation System Technology Centre (ASTeC) • Completion of the upgradation of Automation Lab at C-DAC(T)	Availability of cost-effective solutions of Automation Technologies to Indian user & manufacturing industries.	June, '09	Upgradation of Automation Lab at C-DAC, Trivandrum has been completed.
	• Initiation of remaining technology projects as per adopted roadmap		March, '10	All major projects on various identified technology modules have been initiated.
	• Holding of Industry-Academic interaction workshop/seminar		Jan., '10	The 2nd Industry-Academic interaction workshop was held in December, '09 in Chennai.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	• Review and report of progress of all major on-going projects		Feb.,'10	4 technology modules under this project are available in complete product form for which necessary field trials are undergoing. Other major technology modules both H/w and S/w are nearing completion.
	Other R&D Projects. • Intelligent Transportation System (ITS) – completion of initial design and detailed project report	Demonstration and availability of technologies to prospective users and manufacturing industries.	Jan.,'10	The DPR of all the 8 sub-projects have been completed. Design work is continuing accordingly.
	• Initiation of new application development projects for agriculture/ textile, etc.		Dec.,'09	A project on Electronics for Agriculture & Environment (e-AGRIEN) with C-DAC, Kolkata as nodal agency has already been initiated.
Emerging Areas in IT To build and enhance competencies in Emerging Areas of Information Technology.	**Emerging Areas** Ongoing projects in Scientific Computing, Ubiquitous Computing and Perception Engineering will be progressed and new projects may be initiated in other emerging areas.	Proliferation and absorption of emerging technologies in the country would be facilitated.	March 2010	Projects completed : 1. Pollution Monitoring under National Ubiquitous Computing initiative 2. Virtual Observatory India – The Next Generation Project .

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				3. High Performance Computing facility at NCMRWF using PARAM-net and Linux cluster. New Projects under consideration are – - Virtual Observatory India (VOI) Phase II - High Performance Computing facility at NCMRWF – Phase II - Enhancement of Budget support and scope of work for Perception Engineering programme at six implementing agencies. Total of 12 ongoing projects are being monitored and received. The achievements of the projects were presented at the workshop on the subject.
	Nurturing New Areas Ongoing projects in the areas of Smart Cards and RFID will be progressed. **Technology Innovation** Technology Incubation and Development of Entrepreneurs (TIDE) scheme and Multiplier Grant	Innovation and entrepreneurship would be promoted	March 2010	A proof of concept for tracking of Speed Post parcels using RFID progressed. It will be scaled up as per requirements. Under the expansion of TIDE Scheme, 18 proposals were

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	scheme (MGS) will be progressed.			received. 6 new TIDE centers have been recommended. Under the Multiplier Grant Scheme, 5 proposals were received. The working Group appraised the proposals and requested for re-submission of proposals as per the deliberations.
E-Commerce The program would result in proliferation of e-commerce in the long run	Expansion of Technology Innovation Promotion Programme will be taken-up.

A series of domain specific applications on mobile platform would be initiated | Proliferation of m-commerce in the country. | March 2010 | Projects have been initiated to develop standards for inter-operability of mobile payments & test bed for voice enabled mobile banking transactions. |
| **Bio-informatics Initiative** Better research environment in Bioinformatics in India. | 1. Indian Botanic Gardens Network: Developing web base software tools for digitization and identification of RET species and varieties | India's potential as a Global player in Post Genomic Bioinformatics Research would be Asserted | Code Development -Sep 2009 Euclid studies - Dec 2009

Database of taxa – March 2010 | Achieved |
| | 2. Web-enabled Protein Structure Prediction Software | | Validation – Sep 2009

Web enabling - Sep 2009 | Achieved |

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	3. Four centers of Excellence for Research and Training have been established		Conducting Modular courses – continuing process	Achieved
			Setting-up and initiation of research projects - Sep 2009	
	4. Computational Workflow for High throughput Genome Analysis		SRS - Sep 2009	Achieved
			Design of protocol - Dec 2009	
	5. Agri- Bio-informatics Promotion Programme		Setting-up -Sep 2009	Achieved
			Initiation of courses –Sep 2009	
	6. North East Parasite Information and analysis Centre – an insilico approach		Setting-up, database architecture design – July	Achieved

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
			2009 System design, trial hosting – Dec 2009	
	7. Development of microbial database of North East India		Setting-up - Sep 2009	Achieved
			Characteri-zation, data generation, finalization of GIS- Dec 2009	
Free & Open Source Software (FOSS) Initiative Development and proliferation of Free/Open Source Software (FOSS) in India for bridging the digital divide and helping in creation of a knowledge society.	Project NRCFOSS Phase-II will be launched for implementing the recommendations of the FOSS Adoption Framework.	•Implementation of FOSS Adoption Framework and proliferation of Bharat Operating System Solutions (BOSS) in the country.	March 2010	BOSS/Linux Advanced Server & BOSS Desktop ver 3.1 has ben certified by Linux Foundation for LSB compliance. NRCFOSS portal has been developed.
	Facilitate proliferation of the Indian Version of GNU/Linux Operating System - Bharat Operating System Solutions (BOSS), in the country.		Throughout the year	GCC Resource Centre established at IIT, Bombay. Open Source walk-in e-learning laboratory established at C-DAC,

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
IPR Promotion Programme	• Profile of IPR filed and Granted	50 IPRs to be filed	March 2010	Hyderabad. Developed EduBOSS, a Debian based Linux distribution, for schools. FOSS electives introduced in select engineering colleges. 79 cases filed
	• SIP-EIT Scheme to provide support to SMEs for International Patent in Electronics & ICT	25 Cases to be Processed. Scheme to be Publicized across the country	March 2010	20 cases out of 27 received supported Publicized the scheme at 4 workshops.
	• Conduct of Workshops/ Seminars for IPR awareness	10 Seminars		10 seminars conducted
	Technology Development Projects 6 ongoing and 2 New initiatives on setting up of (i) Patent Information Center for E&IT (ii) Center for development of Tools and Technologies for avoidance of Software Piracy		March 2010 March 2010	Ongoing Projects are progressing satisfactorily. Patent information centers at Pune and Delhi set-up.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Scheme: Convergence, Communication Broadband and Strategic Electronics **Budget Outlay:** Rs.22.00 crore (Plan) (includes Rs. 2.00 crore for NER) **Objective:** To undertake R&D in Convergence, Communication & Broadband Technologies and Strategic Electronics	Initiation of 10-15 projects in development/application of the next generation wired/wireless communication & broadband technologies such as SDR, Cognitive Radio, MIMO, OFDM, Wi-Fi, WiMax, WSN, UWB, TETRA, Broadband on Power Line, NGN & projects in applications for disaster management, safety, security and surveillance. To arrive at specifications for users suiting to Indian conditions, demonstration -and testing of new products and technologies developed. Execution of MoUs and Transfer of Technology (ToTs)	The R&D activities will result in establishing capability for development and application in emerging technologies bringing economic benefits and e-inclusion, safety, security and improved quality of life. The R&D activity will result in creation of knowledge capital and provide users hands on experience & exposure to latest technologies, which will be an asset for the country	On an average 4 projects in each quarter are proposed to be initiated. The projects are generally of 1-3 years duration.	- Seventeen new project proposals have been approved and are being implemented in the following areas: -Next Generation Wireless 4G Communication -Converged access devices -Wireless Sensor Networks Broadband Technologies, UWB, Modem, Antenna -IP based technologies -SDR & Cognitive Radio -Converged Network, FMC & mobile computing -ICT applications in strategic, navigational aids on Land/ Air/ Under water communications -ST radar & Advanced Robotics for strategic applications. -There are 27 ongoing projects that

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				are under implementation and are being monitored by respective PRSG.
Scheme: Components & Material Development Programme **Budget Outlay:** Rs.13.00 crore (Plan) Rs.0.60 crore (Non-Plan) Rs.5.60 crore (IEBR) **Objective:** To support Infrastructure development and R & D projects for the development of Electronic Materials	Development of multi-layer coatings for high density optical storage device	To enhance the writing speed of re-writable optical disk for information storage	March, 2010	Completed.
	Development of liquid crystalline polymers	To develop Liquid Crystalline materials and demonstrate one application	September 2010	Liquid Crystal Polymers (LCP) were prepared, characterized & optimized for fabrication of thermistor type safety device.
	Development of optically active polymers for data storage applications	To develop cost-effective alternative to poly-carbonate for CD/DVD substrate	March 2010	Blends of Poly Carbonate (PC) with proper % of Poly Methyl Methacrylate (PMMA) has been prepared to find suitable alternative for PC. Industrial Trials are on.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	Oxide films and nanostructures for advanced sensors & energy systems	To develop photovoltaic cell for solar energy conversion	April 2011	Oxide films with various metal oxides (ZnO, TiO$_2$ etc.) are being synthesized and characterized for desired efficiencies.
	Studies on synthesis and characterization of p- type ZnO thin films for electronic paper and spintronix applications	To develop p-type ZnO for exploring possible application at e-paper	April 2010	p-type ZnO is being synthesized and characterized. Project extended till April 2011
	Magnetic materials for high-permeability GHz-frequency inductors	To develop inductors of high permeability and GHz frequency	April 2011	Capital equipments were procured and materials are being prepared for characterization
	TMR materials and systems for very high density data storage technology and spintronic devices	To develop TMR materials for information storage, and emerging technology	April 2011	Tunable spin transport medium based on doped transparent conducting oxides developed. Half-metallic CrO2 & La0.67Sr0.33MnO3 were grown to understand the fabrication of TMR materials. Development of magnetic semiconductors with tunable ferromagnetic behavior by doping and/or electrical gating for efficient spin-polarized transport are being studied
	Synthesis of Nano NTC material and development of chip in glass fast	To develop fast	April 2011	NTC thermistor composition (NiMn$_2$O$_4$) was synthesized &

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	response thermal sensors	response nano NTC sensors		characterized to aim target material for thermal sensor
	Development of lead free thick film thermal sensors using RuO_2 based nano size complex mats	To develop lead-free thermal sensors	April 2010	Completed.
To develop environment friendly electronics materials for the components	Development of lead free x-ray absorbing coating materials for TVs	To develop lead free material for X-ray absorption	April 2010	Lead-free x-ray absorbing compounds (Ba_2ZrO_4, $BaBi_2S_4$, and Bi_2O_3) were synthesized. Large scale batches of silicate glasses are prepared. Thickness dependency for X-ray absorption using TEM/ Thermal analyser /UV-Vis spectroscopy carried out. Trails for polymer adhesive coating on glass substrate/cotton cloth, coating of inorganic material using oil/water base nitrocellulose, ethyl cellulose, commercial colour guard on cotton cloth, etc. were conducted. Project extended till April 2011
To support development and initiatives to eradicate the issues related to electronics products affecting the environment	Establishment of testing facilities for the hazardous substances as per European Union (EU) Directive of Restricting the use of Hazardous Substances (RoHS)	To establish a centre for testing of hazardous substances and RoHS certification	October 2010	Purchasing of the capital equipment is completed. NABL accreditation, training of the manpower for international testing methods are under progress.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	Development of processing technology for recycle & reuse of electronic waste	To develop low cost technology to recycle electronic waste	September 2010	Optimization of processing technology of metal, plastic and glass is under progress.
Photonics To nurture photonic technologies relevant in IT and optical communication as well as develop technologies in the broader application areas of Photonics through sponsored R & D projects.	Report on Fluorescence Correlation Spectroscopy Workshop at TIFR	Spreading the base of Biophotonics for Health care	June 2009	Report submitted
	Follow up with various groups		March 2010	Follow up done, some inputs presented at PRSG meeting in TIFR, Mumbai in March 2010.
	Evolving of fellowships/networking programme in Biophotonics		March 2010	Has been broadened to cover all of Photonics
	Technology for fabrication of RE doped Fiber laser by solution doping. Patent application	Fiber laser Development	Feb 2010	In process.
	Completing the setting up of Infrastructure for Developing of High power fiber lasers by nanoparticle Deposition		December 2009.	System arrived. Being installed.
	MBE growth of GaInNAs	Material Growth & Component Development	December 2009	The capital equipment received and being installed at SAMEER. GaInNAs material grown in test run.
	LPE growth of dilute III-V nitride		March 2010	Growth of InAsN with nitrogen

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	materials by LPE			content 0.2% achieved
	Submission of application for Copyright/Patent	Developing of Approach for realizing FBG with Long term stability	September 2009	The patent application has been filed for review in the Indian Patent organization. International patent PCT being filed.
	Nanomaterials and devices Initial Trials and optimization to obtain sub micron/ nano particles of ZnO, ZrO$_2$ & TiO$_2$ in a Transferred Arc Plasma Reactor	Generation of Nano-powders, Nanocomposite & Quantum dots of metals/ semiconductors/ for Electronics Technology and allied applications	March, 2010	Experiments on synthesis of aluminium nanopowders by TAPR technique continued in view of demand expressed by HEMRL (DRDO)
	Optimization of CdSSe glass nanocomposite with respect to absorption edge cut off at 600-630nm.			The preparation of CdSSe glass nanocomposite has been optimized to exhibit optical cut off 600-630 nm. The thermal study of the same is in progress.
	Preparation of organometallic/ inorganic precursors and process development of passivated free standing QDs of Cu$_2$Se Ag$_2$Se and TiO$_2$			Process for Ag$_2$Se and Cu$_2$Se based on CdSe QDs has been completed.
	Development of Zn-Sn-O and Cd-Sn-O thin films			Prepared stable thin films of Zinc tinoxide from stable precursor solution
	Nanomaterials based thick film sensors			Nano NTC powder prepared through SHS method was

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
			March, 2010	characterized by XRD & SEM analysis. Single phase spinel was obtained
	Ultra high purity materials Testing and preliminary experiments to produce tantalum, niobium and titanium nanoparticles Experimental runs on Vacuum refining/ zone-refining system of gallium. Purification of Zn (6N-7N) Bismuth ingot preparation and crystal growth Establishment of Nano powder synthesis facility for refractory metals based on sodium flame encapsulation process	Process technology /Pilot plant scale production of ultrapure metals		Ga vacuum refining system optimized for 1 kg / batch size purification. Analyses confirmed the reproducibility of 6N pure Zn obtained by multiple vacuum distillations. . Quadruple zone refining experiments with a stable zone length of ~4 cm were carried out in order to achieve 6N pure Bi ingot. Chloride reduction experiments continued.
	Materials for Renewable Energy Preparation of carbon aerogel based electrodes for super capacitor applications	Process for renewable energy material.	March, 2010	Fabricated CAG electrodes for supercapacitor applications using 3-6% PTFE by calendaring technique and tested the performance
	Piezo sensors and Actuators Deve-lopment of device quality piez-oelectric films on Silicon substrates Unimorph actuator of targeted	Process/ Technology for sensors and	March, 2010	Piezoelectric thin films based on PZT exhibited excellent transverse piezocharacteristics.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	specifications.	actuators.		Unimorph actuators have been developed which display expected characteristics
Scheme: Electronics in Health & Tele-medicine **Budget Outlay:** Rs.13.33 crore (Plan) (includes Rs. 1.00 crore for NER) **Objective:** To promote development of medical electronic equipment, rehabilitation devices and Telemedicine systems.	• Initiation of project for the development of multi leaf collimator	Availability of indigenous technology for multi leaf collimator for medical linac machine thus making the 6 MV medical linac machine for cancer treatment comparable to international standards	April, 2009	First instalment of funds released. Development work in progress
	• Development of dual energy linac in progress	Design of various sub-assemblies in progress	June, 2009	PRSG meeting held in February 2010. Design of subsystems like Accelerating structure, Beam

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	• Construction of process laboratory for the fabrication of linac tube.	This will ensure the availability of indigenous linac tube to support the production of indigenous 6 MV linac machine for cancer treatment.	Jan, 2010	bending System, triode gun, asymmetric collimator etc in progress PRSG meeting held in February 2010. Construction work of laboratories is in progress. Majority of the equipment are procured.
	• Initiation of new technology development projects	Indigenous development of software and hardware products for health sector	April, 2009	9 new projects initiated
Scheme: Technology Development for Indian Languages **Budget Outlay:** Rs.8.89 crore (Plan) (includes Rs. 1.00 crore for NER) **Objective:** The major objectives of the programme are: (1) To develop information processing tools to facilitate human machine interaction in	**New Projects** Machine Translation system, Cross-lingual Information Access System , OCR and OHWR with increased accuracy and performance towards product development/deployment or initiating research for new languages.	Planning for initiating Phase –II of the projects.	Initiation by March 2010	Phase –II projects for OCR , OHWR and ILMT consortia recommended by Working Group of TDIL

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Indian languages and to create and access multilingual knowledge resources/content. (2) To promote collaborative development of futuristic technologies leading to innovative products and services.	Setting up of Indian Language Data Centre, merger of existing ILDC operations and up-gradation of TDIL website and support for language CDs.	Establishment of Data Centre at TDIL	Initiation by March 2010	Architecture of data centre and portal finalized.
	W3C India Office in collaboration with W3C would be established and Finalization of Indian Language specific inputs / recommendations in selected W3C web technology standards	Establishment of W3C India Office and draft standards	March 2010	Project initiated. International Conference on W3C planned in May 2010.
	Automatic Speech Recognition engines for Indian languages	Development of Automatic Speech Recognition in few Indian languages (Hindi, Tamil, Telugu, Bengali)	March 2010	Project initiated
	On-Going Projects An Integrated Wordnet for North East Languages Assamese, Bodo, Nepali and Manipuri linked with Hindi and English Wordnets	Development of Word-net for Languages of the North East	March 2010	4NE languages are being linked with Hindi Word-Net by constructing 2000 core synsets and 10000 common synsets.
	Parallel annotated corpora in the tourism & health domain in 11 Indian	Development of multi-lingual parallel	March 2010	25000 Hindi sentences with different structures have been

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	languages with Hindi as the source language.	Corpora.		collected/developed. These are being translated in 11 languages
	Text-to-speech systems for Six Indian languages with Mean Opinion Score of above 3.0 would be developed. The TTS would be developed for visually challenged persons having screen reader facility in Indian languages.	Development of alpha version Text-to-Speech in few Indian languages(Hindi, Marathi, Malayalam, Tamil, Telugu, Bengali)	March 2010	Project under implementation
	100 hours of Bodo speech Corpora and IPA representation of Bodo language would be developed.	Development of Bodo Speech Corpora and its IPA representation	March 2010	Speech corpora recorded
	OTF fonts and draft standards for Indian Language Keyboard and script grammar	Development of Open Type Fonts & standardization of enhanced Inscript Keyboard	March 2010	Draft Script Grammar for eight Indian Languages viz. Bengali, Gujarati, Konkoni, Marathi, Maithili, Manipuri, Malayalam and Nepali being developed and being validated by language experts.
	Generic Tool for NLP Applications	Dashboard Development Environment for NLP Applications, Punjabi Grammar Checker	March 2010	Project under implementation
	Consortium Mode Projects in the areas of Eng-Indian languages Machine Translation system , Indian Language-Indian Language Machine Translation System , Cross-lingual	Up-gradation from alpha to Beta versions of the systems	March 2010	Testing and Evaluation of Alpha version has been completed.

REVIEW OF PAST PERFORMANCE (2009-10)

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	Information Access, Optical Character Recognition (OCR) and On-line handwriting Recognition systems			
	Trained Manpower in the Area of Natural Language Processing	Human Resource Development in Language Technology	March 2010	Approx. 40 trained manpower in the area of NLP generated
	Development of Sanskrit Computational Tool Kit and Sanskrit-Hindi Machine Translation system	Pre-alpha version of Sanskrit-Hindi Machine Translation system.	March 2010	Different modules are being integrated and POS & MA engines have been fully integrated.
	Development of Tools and Resources for North-Eastern Languages	Linguist resources like CLDR, Corpora, Dictionaries, Fonts, keyboards.	March 2010	Draft CLDR for Assamese , Bodo , Nepali and Manipuri languages developed and Assamese CLDR uploaded to UNICODE CLDR web-site
	National roll out plan project.	Release of balance six languages CDs (Bangla, Konkani, Kashmiri, Santhali, Sindhi and Manipuri).	March 2010	22 Lang. CDs have been made available for free use through http://www.ildc.gov.in. Phase –II of the project has been approved by TDIL Working Group.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Scheme: IT for Masses (Gender, SC/ST) **Budget Outlay:** Rs.8.00 crore (Plan) (includes Rs. 2.00 crore for NER) **Objective:** Upliftment of Women folk and SC/ST	• To conceive and formulate projects for development of Women, SC/ST – through ICT	Capacity building of Women and SC/ST through infrastructure development, training of target groups in different states/ UTs.	▪ 3 new projects March 2010.	1. Chanderi integrated ICT for development programme (CIIDP) in Madhya Pradesh . 2. Computer learning centres in Govt. first grade Women colleges in Karnataka. 3. Capacity Building, education, and skills development for Women and SC/ST in IT using Language technology in Gujarat.
Scheme: Media Lab Asia **Budget Outlay:** Rs.5.00 crore (Plan), & Rs.20.00 crore (Compl. EBR) (includes Rs. 1.00 crore for NER) **Objective:** To bring the benefits of	❑ Integration of ongoing projects in Education including Disability	Development of technologies,	All the areas mentioned are	- 226 RCI/MSJE recognized Institutions were added to

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
the information and communication technologies and other advanced technologies for the benefit of the common man.	related activities, Healthcare & Livelihood Generation. 'Lab to Land' projects.	applications and deployment of models in the thrust areas of Media Lab Asia, viz. livelihoods, education, healthcare and rural connectivity (application specific)	being acted upon.	Navashikhar Channel- EDUSAT based network for Special Education bringing the total institutes to 473. - Computerized Braille Transcription System installed in another 14 schools bringing the total to 40 schools. 2 teachers from each school were trained on the system benefiting 3000 students. - Shruti-Drishti, a web page browser with option of presenting the displayed information in a verbal mode or in the Braille format or both was installed in another 30 schools bringing the total to 40 schools. 2 teachers from each school were trained. The system is benefiting 4081 blind students including 2314 female blind students. - Web enabled Integrated Assessment tool developed for Mentally Retarded children (Punarjjani™) was installed in 8 schools of Kerala on a pilot basis. This is benefiting nearly 850 Mentally Retarded students.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				- For Inclusive Education for Visually Impaired students 623 hours (30 Nos.) of English Daisy Books and 553 hours (30 Nos.) of Hindi Daisy books have been generated. 30 books in Hindi and 40 books in English were converted into e-Text. 10 books were generated in synthesized voice. 50 University level Books were scanned. 20,000 copies of CDs of these books have been distributed. - Pilot deployment of eDhanwanthari (web based telemedicine s/w) was completed at 8 remote centres & 4 specialty centres in Kerala. Till date 356 tele-consultations have been provided to rural patients. -Deployment of mDhanwanthari – A mobile telemedicine van has started running at 20 locations at Cherthala taluk, kerala for treatment of TB, Diabetes, Pre-natal healthcare. 2785 patients already treated. This service can be

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				availed by **4.34 lakhs** population of the taluk
				-Large scale deployment of 'Sehat Saathi' (telemedicine s/w) was carried out at Venu Eye Institute & Research Centre, New Delhi and its 6 satellite-vision centres in Uttar Pradesh, Haryana & Uttarakhand. Consultations have been provided to 210 patients till date.
	❑ IT related education & livelihood generation projects in North-East.			'ICT in rural schools' project was extended in Mizoram to another 100 schools in the State. 11000 students & 1250 teachers are expected to be benefited under the program.
	❑ Pilot deployment of Integrated Agri Services Program in states.			
	❑ Establishment of Community Radio systems in Agricultural sector such as SAU & KVKs etc.			- The project was completed successfully by operationalizing CRSs in 5 State Agriculture Universities (SAUs) Viz. SAU's at Faizabad, Ranchi, Coimbatore, Hissar & Raipur.

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	❑ Deployment of ICT tools & e-learning based education system. ❑ Deployment of Chic Software and Setting up of Chanderi Weavers ICT Resource Centre (CWICTRC) at Chanderi, Madhya Pradesh and other places.			-Conversion of Offline Intelligent Tutoring System into web based system has been completed. Extensive testing is going on. - Chanderi Weavers ICT resource center was established in Chanderi, MP to provide various livelihood and soft skills through ICT based empowerment and facilitation of textile weavers in Chanderi community. - CAD based software in CWICTRC was installed to create designs at weaving level, Apparel design and digitization of 17 traditional Chanderi designs, 80+ other Chanderi designs has been digitized using CAD software deployment. 125 apparel designs have also been developed. -Around 500 Weavers have been trained and another batch of 450 students are being trained using ICT tools in designing in various aspects like basic design, cloth design, apparel design, textile design, and finished product design in the center. Chanderi youths are being provided skill

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				builder training, Design making, English program and Computer training etc
	❑ Packaging and Customization of Health Management Information System (HMIS).			HMIS envisages empowering of field level health workers with mobile/handheld based data collection and synchronizes this data with web based software for synthesis, analysis and report generation for health Officials / decision makers. The Implementation has started in Vettom Block (35 sub centres) and Valavannur Block (51 sub centres), Tirur Taluk, Mallapuram district, Kerala. Total 86 handheld/mobile devices have been procured and handed over to field workers after proper training. Data collection of demographic, family Welfare, antenatal care, post natal care for mother and child, immunization, communicable / non communicable disease / ORT diseases, malaria / RNTCP / blindness, immigrant /emigration is in process and 3.5 lakhs persons have been registered.

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Scheme: STQC **Budget Outlay:** Rs.71.00 crore (Plan) (includes Rs. 7.00 crore for NER) & Rs. 8.00 crore (Non-Plan) **Objective:** Establishment of Quality Assurance Infrastructure in the country to facilitate quality products & services at par with global standards and practices	1.Up gradation of Test & Calibration facilities to cater to state-of-the-art products with emerging technologies	Allocated budget will be spent for up gradation of test and calibration facility to meet the demand industry.	March, 2010	Fully utilized allocated budget for up gradation of test & calibration facilities.
	2. Move towards self sufficiency.	Revenue of Rs. 42 crores approx. likely to be generated.	March 2010	Revenue of Rs.41.45 crores has been generated up to Mar., 2010.
	3. Upgrade s/w test facilities for e-Governance application	S/w Test Tools for "Mission critical Project" like defense/space will be procured.	December, 2009	Tools have been procured.
	4. To obtain accreditation of S/w Test lab.	IT Centre (Kolkatta) & IT Centre (Bangalore) to be accredited for Usability Testing from International accredited body.	March, 2010	Applications have been submitted for accreditation.

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	5. Security Standards /guidelines for e-Governance	Security Standards Guidelines documents to be made available to NIC for closed group & public review.	June, 2009	Six standards / guidelines approved and published.
	6. Progress construction activity of STQC Building at Noida.	Construction activity of first phase to be completed.	Dec., 2009	In progress
	7. Human Resource Development by conducting DOEACC 'O' & 'A' level courses in NE region.	SC/ST/OBC/women / weaker section of society and unemployed youth of NE region will be benefited in Computer field.	March, 2010	In progress
Scheme: Digital DNA Park **Budget Outlay:** Rs.0.01 crore (Plan) **Objective:** To set up Bio-IT Parks to do research & development in the genome and other areas	To establish high performance computing facility	Research in the areas of high performance computing will be performed	By 2012	Setting up of Bio- IT centers in Bangalore is in progress.

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Scheme: e-Governance **Budget Outlay:** Rs.900.00 crore (Plan) (includes Rs. 90.00 crore for NER) **Objective:** The NeGP has been formulated for taking a holistic view towards the entire e-Governance initiative across the country and for giving a thrust to e-Governance activities across various arms of government at the national, state and local government level. NeGP uses a programme approach, which is guided by a common vision, strategy and approach to objectives. This approach has the added advantage of enabling huge savings in cost, in terms of sharing the core and support infrastructure; it enables	Establishment of SWAN To provide 2 Mbps data connectivity up to Block level in all States /UTs in phases. As Part of the ongoing Scheme both leased line and wireless based network would be created across the country. Implementation activities for SWAN for all 29 States and 6 UTs have been initiated. Facility will be in place either partly or wholly for atleast 15 States/UTs.	Phase wise implementation of network in 29 States & 6 UTs expected.	State Government, would leverage the SWAN as a core network infrastructure progressively to provide G2G services and later G2C services (even below Block Hqrs level when last mile connectivity would be made available) whose availability is presently confined to the location of the	Implementation of this Scheme is in full swing. Individual project proposals have been approved for 33 States / UTs so far. The SWANs in 19 States i.e Haryana, Himachal Pradesh, Punjab, Tamil Nadu, Gujarat, Karnataka, Chandigarh, Delhi, Tripura, Puducherry, Lakshadweep, Kerala, Jharkhand, West Bengal, Chhattisgarh, Uttar Pradesh, Sikkim, Maharashtra, and Orissa have been rolled out. SWANs in other States/UTs are in various stages of implementation. All the SWANs are expected to be completed by August, 2010. Out of sanctioned amount of Rs. 1,964.97 crore, the Department has, so far, released Rs. 562.41 crore to 33

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interoperability through standards, which would result in the citizen having a seamless view of Government. The programme is overseen at the highest level by the Apex Committee headed by the Union Cabinet Secretary.			offices providing these services any where anytime over the entire State. To be completed by Sept 2009.	States/UTs. To monitor the performance of SWANs, the Department has mandated positioning of Third Party Auditor Agencies(TPA) by the States/UTs. As on date, 11 States i.e. Haryana, Himachal Pradesh, Punjab, Gujarat, Karnataka, Kerala, Tripura, Orissa, Maharashtra, Arunachal Pradesh, and West Bengal have empanelled the TPA agencies for monitoring the performance of the SWAN
	State Data Centres State Data Centre has been identified as one of the important element of the core infrastructure for supporting e-Governance initiatives of NeGP. The Scheme has been approved by the Government at an total outlay of Rs.1623.20 Crore over a period of 5 years. It is proposed to set up Data Centres across 35 different States/UTs in the country during the 11th Plan.	Secure and reliable data Repository sharable across various applications. State Data Centre will help in providing efficient electronic delivery of G2G, G2C and G2B services.	It is expected that around 8 Data Centres shall be set up/ operationalised by March 2010. Thereafter remaining Data Centers (about 23) are expec-ted to be oper-ationalised in a phased manner during the year	i) SDC proposals approved for 31 States/UTs. ii) RFPs of 20 States approved by the DIT. RFP of 5 States are under approval by DIT. iii) 12 States have completed the bid evaluation, out of which 9 States have awarded contract and one state has issued LOI to the selected bidder. iv) 2 States are in process of issuing LOI to the selected

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			2010-11.	Bidder.
				iv) Bid process is in progress in 6 States.
	Common Service Centres (CSCs)			
	The Government has approved a Scheme for establishing 100,000+ CSCs, primarily in rural areas of the country. These Centres would be broadband Internet enabled and would provide all government and private services at the doorstep of the citizen. The Scheme is to be implemented in Public Private Partnership. The Scheme has been approved at a total cost of Rs 5742 crore with Government of India contribution Rs 856 crore and State Governments contribution being Rs 793 crore. The balance funds would be brought in by the private sector.	Sanction the CSCs proposals for remaining States and UTs in the country. Complete the process of establishment of 100,000+ CSCs in the country	December 2009	RFP for Punjab issued.
	21,882 CSCs have been rolled out covering fourteen States.			
	Successful implementation of the CSC scheme would largely depend upon availability of last mile connectivity i.e. broadband connectivity; up to the village level. Considering the importance, urgency	Provisioning of broadband connectivity to 100,000+ CSC	March 2010	76100 CSCs have been rolled out covering twenty nine States.

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	and necessity of implementation of the Last Mile Broadband Connectivity; a two phase plan has been worked out by the Department of IT, GoI in consultation with Department of Telecommunication and BSNL. This is as follows: **Phase –I – Broadband Wire-line connectivity:** This phase would comprise of provision of wire-line Broadband connectivity to those locations where only BSNL has rural exchanges by upgrading capacity of these exchanges. This would provide broadband connectivity to approx. 30000+ CSCs. **Phase –II – Broadband Wire-less connectivity:** This phase would comprise of provisioning of wire-less connectivity by BSNL from Blocks/ Talukas. BSNL would upgrade existing towers with required wireless base stations and also establish new infrastructure where tower is not available. With this provision another 69,000+ CSCs could be provided Broadband connectivity. **Facilitating Services through CSC by enabling Implementation of**			As approved by the Empowered Committee for the CSC project, DIT is providing financial support to BSNL for Broadband Connectivity for CSCs. As per BSNL's plan, 32610 CSCs are to be connected by ADSL2+ through rural exchanges out of which 28637 CSCs have been covered. Another about 63,605 CSCSs are to be provided Broadband Connectivity through WIMAX and 2890 CSCs will be connected through EVDO cards. Further about 2500 CSCs in remote areas of the North East are being provided with VSAT based connectivity through NIC.
		To create an integrated information	March 2010	Total funds of Rs.101.65 Crore

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	State Portal, SSDG, e-Form Application and Gap Infrastructure The scheme of ensuring delivery of services through CSC by enabling the State Portal (SP), State Service Delivery Gateway (SSDG), Electronic form Application implementation and gap infrastructure under NeGP has been approved with a total outlay of Rs. 400 Cr. It is envisaged that SP along with SSDG will be developed and implemented so that citizens are provided with outlets where they can access the services under a single interface mechanism in the form of the Portal.	infrastructure that will expand, integrate and enhance utility and reach of services provided by government by utilizing the network of CSCs		released for 28 States/UTs of Himachal Pradesh, Kerala, Puducherry, Tamil Nadu, Arunachal Pradesh, West Bengal, Andaman & Nicobar, Bihar, J&K, Maharashtra, Meghalaya, MP, Punjab, Tripura, Jharkhand, Assam, Orissa, UP, Sikkim, Nagaland, Rajasthan, Haryana, Chandigarh, Karnataka, Goa, Manipur, Gujarat and Uttarakhand.
	e-District e-District as a concept proposes integrated and seamless delivery of citizen services by district administration through automation of workflow, backend digitization, integration and process redesign across participating departments such as Revenue, Food, Basic Education, Social Welfare, Minorities, Forests,	Implementation of e-District pilot in 14 States (36 Districts) already sanctioned. 2. Obtain financial approvals for the e-District Mission Mode Project Scheme	March 2010 March 2010	• In UP, Assam and Tamil Nadu, pilot has gone live in all pilot districts. • In MP, Application Development is completed. • Bihar, Kerala, West Bengal, Jharkhand, Maharashtra, Mizoram and Orissa:

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	Panchayati Raj, Rural Development, Agriculture, Election, Home, Minor Irrigation, Passport, Irrigation, Excise, Finance & Treasuries, Family Welfare, Horticulture, Cooperatives, Transport, Health, Land Records, and Registration etc. for providing services to the citizens.			Application development is under progress • Haryana: Application Development Agency is appointed • Punjab, Uttarakhand Process for selection of system integrator is underway • DIT is in the process of National rollout of e-District project for which EFC note is under preparation
	e-Bharat To support NeGP, GoI has been carrying out a dialogue with World Bank for possible programme management and financial support (called "e-Bharat project"). The proposed World Bank support is expected to finance an agreed-upon subset of those NeGP activities (MMPs and program Components) which are most directly related to the objectives of the Bank's Country Assistance Strategy (CAS), after these have received Cabinet approval. The Bank has as part of its preparatory activities, undertaken	Ensure improved service levels under the selected MMP, accessible to the common man in his locality, through an integrated service delivery mechanism at affordable costs. Create contemporary infrastructure for the selected MMPs that provides transparent and effective	Appraisal by September 2009. Financial sanction & initiation of implementation of Projects under e Bharat by December 2009.	Following GoI's decision not to establish a dedicated SPV (i.e. National e-Governance Agency), the Bank advocated a newer look to be adopted inter-alia suggesting termination of the preparation of "e-Bharat" Project. In view of significant efforts including sizable resources put in by DIT/other Line Ministries and participating States for timely completion of project preparation activities, DIT reemphasized its

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	several missions in the past, the last one during February 2008. The Bank reported good progress achieved in advancing preparation of e-Bharat project including preparation of NeGP/e-Bharat Program Management and Financial Manuals, formulation of Detailed Project Reports that could serve as the basis for appraisal as well as finalization of Core Scope Guidelines for the eligible projects. Discussions are at an advanced stage with the DEA and the World Bank to finalize the size and scope of the project. This support is expected to be in the form of a Specific Investment Loan (SIL) spread over a four year period. **Capacity Building** To realize the NeGP vision, 27 Central, State and Integrated Mission Mode Project (MMPs) along with 8 support components have been identified in NeGP. The focus has been service delivery to citizens. Capacity Building is one of the important components of NeGP for establishing internal capacity with in the Government framework	interaction between the Government and Common man (in the rural and urban setting) & businesses ensuring economic growth.		keenness to carry forward the "e-Bharat" initiatives after confirmation on two basic issues, namely "programme framework" design approach and an in-principle commitment from the Bank for US$ 300 million, as was being contemplated before. Following submissions from DIT, though no formal communication has been received from the Bank, it has shared a draft revised project approach which it is now contemplating to propose for e-Bharat. The revised proposal is likely to be based on programme-based" approach, which comes under the category of Development Policy Loan (DPL). Meetings between DIT and World Bank have recently been held to discuss the proposed programmatic approach for NeGP including Development Policy Loan approach and instrument, its main components and requirements, main processing steps involved and the way forward. Following DIT's suggestion, discussions with the Bank are

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	essentially at the State level. Institutional Capacity Building in 28 States and 7 UTs			currently under way, to explore and agree on a revised framework and modalities, for the project to get functional.
	1. Creation of SeMT for various States/UTs	Setting up of SeMT in States/UTs	June 2009	i) 25 States/UTs have already set up SeMT through empanelled agencies ii) Setting up SeMT through empanelled agencies in 10 Stats/UTs is under processs. Terms of Reference for content development and delivery of training has been issued to streamline the Specialized Training Phase-II for all States/UTs .
	2. Orientation/Training of SeMT & Policy Makers in Phases	Delivery of training to Sr. officials, policy maker & SeMT	Continuing activity	Training/Orientation "e-Governance Leadership Meet" for policy and decision makers for the State of UP, Rajasthan and MP was ready to conduct but it has been postponed due to various reasons of the State
	3. Preparation of DPR by States/UTs	Preparation of MMP DPR	Continuing activity	Continuing activity

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	4. Strengthening of Training Institute in States	Fulfill the training requirement	Continuing activity	Continuing activity
	Horizontal Transfer of Successful e-Governance initiatives			
	On going projects in Land Record, Property Registration and Technical Assistance for Rolling out.	-Pilot for providing citizen services	Continuing activity	The projects "Land Record and Registration in the State of Meghalaya" has been completed
	GIS/GPS Application			
	Initiation of New project	Developing spatial decision support system	May 2009	Setting up of Regional Centre for GIS.GPS based application Development and maintenance is under consideration/formulation
	Completion of ongoing activities		January 2010	Spatial Decision Support System for Land Resource Management project in Manipur has been completed. Testing of the system is under progress
	Standards for e-Governance			
	Development and enhancement of Standards, Guideline, Policy in identified areas of concern Development of standards in the new areas Publishing of standards on the	Ensure Interope- rability, integration & seamless data sharing of e-Gov applications Release of standards/	April'09 onwards–	• Portal for publishing and collaboration on standards has been developed (http://egovstandards.gov.in).

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	website	guidelines in Interoperability, Data & Metadata, Security, Localization, Quality & other new areas that emerge		• Meta data and Data standards for person identification and land region codification and Localization standards (Unicode 5.1 and Open Font Format) have been notified. • Draft Interoperability Framework for e-Governance applications under preparation. • 6 guidelines on Security framework for implementation of ISO27001 published. • Digital signature certificate interoperability guidelines published. • Conformity Assessment Framework guidelines have been prepared for ensuring quality. • The Task Force on the eForms has prepared two draft reports on the Policy and Roadmap. • Standards for Facial image and fingerprint image are under preparation by the Expert Committee.
	India Portal Content Enhancement ISO Certification Promotion of Portal	Seamless search of govt. information available at the central & state levels and will facilitate Single sign-on	On-going	• Awarded with ISO Certification. • The Hindi and English version

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		to various govt. services and information in turn making citizen interface much simpler & easy.		of the Portal made compliant to the W3C Web Accessibility guidelines for disabled • NGO Partnership System (NGO-PS) – Developed as a part of the India Portal project for the Planning Commission. NGO signup has increased to 5200+. • Complain & Appeal Module for Central Information Commission (CIC) - The online, workflow & administration module of the software has been working, automated documentation functionality has been incorporated & various MIS reports are being regularly taken out. • Content Enhancement – In various sections like Business, Industry and Services, Infrastructure, Doing Business Abroad, Government Tenders, Citizen Section have been done • Institutionalization of Web Ratna Awards • The nominations have been opened as received from Government Ministries/Departments/States/

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	National e-Governance Service Delivery Gateway (NSDG) NSDG is a middleware infrastructure, would act as standards based routing and a message switch de-linking the back end departments from the Front-end service access providers. This would facilitate standards based interoperability and integration to existing and new e-governance applications. A pilot implementation has been successful developed and tested. The National Gateway is implemented by CDAC and is Live since Aug'08 • Operations & Maintenance for 5 years • To be plugged into various e-Gov projects	This soft infrastructure which is based on standards will facilitate integration, interoperability & data sharing amongst various e-Gov application.	Launching in July 2009	Offices for exemplary e-governance initiatives for 6 categories of Web Ratna Awards. • Accolades – Received Award for "Government to Citizen Initiative of the Year" in e-Government track of India 2009 Conference at Hyderabad. • NSDG specifications (IIP, IIS, IGIS) finalized • Integration of MCA 21 with NSDG completed. • Integration with other e-governance Project like PAN & Trademark database, EBiz, India Portal, State applications etc underway • Program Management Structure for NSDG approved at DIT. • NSDG PoC for Application Performance Management conducted • Proof-of-Concept on e-Form submission via NSDG demonstrated successfully at the Round Table Conference held at

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	Conformity Assessment Centre DIT, under this project, is creating 7 IT centers (region-wise) in terms of skills, knowledge and experience with technical in the areas of Information Security, Software Quality, IT Service Quality etc. These centers will provide Audit, Compliance and Certification Services to various e-Governance applications. The project is being executed by STQC. • Continuation of service provisioning to various eGov Project at Centre and State Levels • Release of Conformity Assessment framework and the Quality Assurance framework	Will help to scale up e-Gov Implementations in India and generate confidence	On-going	Manesar on 29th Jul'09. • Several deliverables like Software Requirement Specification (SRS), Performance Test plan, User Manuals prepared • Draft guidelines for applications requiring to send messages beyond 2MB through the Gateway drafted. • ebiz related changes incorporated and tested by STQC. • Quality assurance framework for e-Governance prepared • Assessments of various MMPs completed like: MCA 21, Commercial Tax of Madhya Pradesh, NSDG, Excise Tax of Government of Maharashtra, CRIS Indian Railways, etc.

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	• Organizing three to four workshop on Quality eGovernance **R&D in e-Governance** To have the gateway & Portal development in various platforms which will bring direct benefit to the State Gateways and State Portals To develop various tools for better citizen service delivery To develop shared services on the gateway	To facilitate single window access to various government services To enable the seamless interoperability and exchange of data across the various eGovernance applications under NeGP	April'09 onwards	The Consortium Mode Projects in language technology continued to be supported and the Alpha versions of following systems have been developed: 1) English to Indian Languages Machine Translation (8 language pairs viz. English–Hindi, English–Urdu, English–Oriya, English–Bengali, English–Marathi, and English–Tamil. Eng –Hindi; Eng-Malayalam;). 2) Indian Language to Indian Language Machine Translation (6 language pairs viz. Punjabi-Hindi, Hindi-Punjabi, Urdu-Hindi, Hindi-Telugu, Hindi -Urdu, Telugu –Tamil). 3) Cross-lingual information access (4 language pairs; viz. Eng-Hindi, Eng- Marathi, Eng- Tamil,

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				Eng- Bengali). 4) Optical character recognition in major Indian languages. 5) On-line handwriting recognition systems in major Indian Languages.
	Open Technology Centre (OTC) GOI has initiated the setting up of an Open Technology Center through NIC aimed at giving effective direction to the country on Open Technology in the areas of Open Source Solutions, Open Standard, Open Processes, Open Hardware specifications and Open Course-ware. The OTC will provide the requisite support to the Standardization activity for e-Governance. • To provide synergy to the overall components of Open Technology initiative that are being taken by various communities • To strengthen the support on the Open Technology • To provide the requisite support to the Standardization activity for e-Governance.	• OTC to form Help-Desk Mechanism for NeGP on Prioritized Open Source Stack • Support for hand holding services for using Open Source Software in e-Governance Project • Help to launch 1 e-Gov Portals / Applications which are compliant with Web Accessibility Standards • A Document and Reference for migration/porting of legacy applications to Open Technology • A Handbook on	April'09 – March'10	• **X-Forms Technology** The usability of X-Forms technology demonstrated in few e-Governance applications. • **Adaptation of Component Based Application Development** OTC facilitates the usage of Component Application Development in eGovernance projects by developing components and conducting workshops. • **Replication and Data Consolidation** The data replication and consolidation from any database to any database was carried out for Transport Project, Municipalities Project and Land Record Projects of Tamil Nadu State. • **Legacy Application migration to Open Source Software**

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		"Open Technology" • Coordination with Six Technology Standards Expert Committees to prepare & update reports on the identified area • A Document on Guidelines to select matured libraries and tools, in consultation with various stakeholders, for Open Source Solutions, which are to be used in e-Governance Applications • Conformance Lab for Compliance with prioritized Open Technology Standards for e-Governance • Augmenting additional man-power of about 5 Trained NIC-Experts and about		The migration of the Office Procedure Automation (OPA) has been done from Legacy Database to Open Source Database • **Training Programs conducted on** Object Oriented PHP, Java MVC Frame Work: Wicket Training for PDS team, Software Development Environment Tool: Fuse Forge etc • **Cloud Computing** The initiatives have been taken to study the suitability of Cloud Computing for e-Governance applications.

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		25 Research Scientists		
	Establishment of BOSS Support Centres and Business Development (NRCFOSS) • Setting up of support centre in academic institutions • National campaign and state-wise campaigns. • Certification programme for BOSS linux (Server & Desktop)	• Setting up of remaining 25 BOSS Support Centers and mirror sites for faster downloading of FOSS tools • Training and deployment of remaining support personnel in BOSS Support Centers • Business Promotion & vendor development • Further development and enhancement of BOSS Linux • A "Self Supporting Business Model" for BOSS Support Centres for self sustainability and expansion of	April'09 – March'10	As a result of efforts put in by the project team, several states like Delhi, West Bengal, Kerala, Tripura, Gujarat, Uttarakhand, Pondicherry, J&K have shown interest for adoption of BOSS. Demo/ installations of BOSS (around 2000) have been done in 90 academic organizations. As part of MOU with Indian Navy for deployment of BOSS in office applications, 500+ installations have been made and 300+ officials have been trained across Navy locations. • National Help desk facility setup in Chennai • MOU signed with National Informatics Centre(NIC) for deployment of BOSS Linux

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		operations.		across the country in e-Governance applications. • Implementation on in Kerala in 101 villages across Palakkad & Thrissur districts (application DC Suite).Currently in 3 taluks BOSS Linux has been installed in around 120 systems. • Government of Punjab has issued order for deployment of BOSS Linux in 46000 desktops spread across 4965 schools in Punjab under Sarva Shiksha Abhiyan programme. Installations and training/ workshops initiated. BOSS user manuals developed in Punjabi. • MOU signed with CHiPS (Chhattisgarh Infotech & Biotech Promotion Society) – nodal agency for Government of Chhattisgarh – for deployment of BOSS Linux across the state. BOSS Linux currently deployed in their CHOICE (Chhattisgarh Online Information System for Citizen Empowerment) project. 450+ officials trained on BOSS across Chhattisgarh. Several new CHOICE services

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				implemented on BOSS. • **BOSS Linux workshop titled "Open Source *demystified"*** was conducted in major cities across the country including Bangalore, NOIDA, Mohali, Kolkata, Hyderabad, New Delhi, Mumbai & Chennai • **A TV commercial on BOSS Linux desktop edition** has been produced. The commercial currently in English, Tamil & Hindi languages would also be produced in other regional languages with different time slices and planned to be launched across major TV channels for promotion of BOSS Linux. • A study on BOSS Linux – Impact Analysis has been initiated in association with an external agency. The report will come out with a detailed Business Model for BOSS.
	Assessment This programme is basically the Impact Assessment Studies of e-Governance projects and the e-Readiness survey of India.	The summary Assessment exercise will be moved to the next level i.e. assessing the impact of projects on	2009-10	• Impact Assessment of JNNURM e-governance projects completed in 4 municipalities – Kolkata,

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	The Department of Information Technology carried out an exercise of Summary Assessment of selected e-Government projects in the year. The assessment was carried out for 39 such projects across the country. The projects were assessed on the assessment framework EAF 2.0, designed jointly by NISG & IIM, Ahmedabad. **Awareness & Communication** National Awareness Campaign for NeGP • To build distinctive brand of NeGP which be utilized across Departmental communications • To create awareness among citizens about the initiative & its objectives • To motivate stakeholders, with an emphasis on the point that NeGP is not about computerization or technology but making interaction with government easier	the target audience by selecting appropriate agencies that can carry out non-technical social impact assessment studies. As part of the strategy, it is proposed that while the NeGP umbrella campaign will be designed and run by the DIT, the respective MMPs and Components will be free to run their respective awareness campaigns. However, the MMPs will be required to carry the logo and tagline of NeGP to convey the over-arching picture and a sense of continuity between the	 March 2010	Mumbai, Delhi and Hyderabad. • Impact Assessment of Commercial Tax project ongoing in 10 states – Assam, Sikkim, UP, Delhi, West Bengal, Rajasthan, Gujarat, Andhra Pradesh, Tamil Nadu and Chhattisgarh Workshops and Conferences National Level Workshops o The first conference of ICT Ministers to discuss the topical issues related to Speeding-up Delivery of e-Services, Institutional Framework for e-Governance Projects, & speeding up of e-Infrastructure required for the delivery of e-Services was organised at Vigyan Bhawan on 27th of Oct, 2009.It provided a unified platform to discuss all issues pertaining to speeding up

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		various MMPs and Components. To create a demand driven atmosphere which would ensure the service delivery & its quality are met It is proposed to initiate/ support the following activities: Create awareness at the national level through a campaign on various aspects/components of NeGP in India Educate the common man on the vast potential of e-gov and encourage him to avail the benefits of the same. To promote e-governance among top level political and bureaucratic setup and other sectors like industry, academia, and media		delivery of e-services. More than 250 stake holders in e-Governance including MCIT and Minister of State (P) IT Ministers of States, State IT Secretaries and DIT officials took part in the day long deliberations. Enormous participation from State Governments, Industry and Media was there. Print Ads were also released through DAVP for the conference o 13th National e-Governance Conference was successfully organized in Jaipur on 18-19th February, 2010. Print Ads were also released through DAVP for the conference o Creative/collateral support towards facilitating NeGP awareness was provided to the Round Table Conference held in Manesar. State Level Workshops organized in 2 States o Gujarat- 25th June, 2009

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		Encourage adoption of change management practices in the government setting especially with middle level functionaries		o Madhya Pradesh- 7th May, 2009 3 Zonal Level Workshops organized in Madhya Pradesh o Bhopal- 6th April, 2009 o Rewa - 13th April, 2009 o Gwalior- 21st April, 2009 Workshops organized with external parties o e-India Conference, Hyderabad o ASSOCHAM e-Governance Summit, Delhi o Manthan Awards, New Delhi o Banglore IT Biz, Banglore o Govt. Technologies Conference & Expo 2010 o e-States Conference, Rajasthan Brand Building- o Branding DIT stationary with NeGP logo initiated. o Internal communication efforts within the Department initiated o A short film on CSCs produced.

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				o An NeGP information film was subtitled in English to facilitate wider reach/propagation. o NeGP informational posters were dispatched to Govt Officials/ e-Gov implementers. o The Ministry of Railways has proposed running an exhibition train (as a run-up to Commonwealth Games 2010) on the theme of Sports and Information Technology. Efforts have been initiated at DIT to address the IT part of the exhibition.
Scheme: Cyber Security (incl. CERT-In, IT Act) **Budget Outlay:** Rs.33.00 crore (Plan) (includes Rs. 4.00 crore for NER) **Objective:** • Security Policy, compliance & assurance	• Improvement in security posture of organisations and enhancement in the ability of IT systems and networks to resist cyber attacks.	• Implementation of Security Best Practices – ISO 27001 in Govt. & critical sector	• Ongoing	• Govt. and critical sector organizations are implementing the secutity best practices in accordance with ISO 27001 standard and as per the advice issued by CERT-In.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				Services of CERT-In empanelled . IT security auditors are being used to verify compliance.
		• Implementation of cyber security Crisis Management Plan (CMP) in Central Govt. Ministries/Deptt. as well as States/UT	• Ongoing	• Crisis Management Plan has been released for countering cyber terrorism. Cyber security drills to assess preparedness of organisations to withstand cyber attacks are planned. Second cyber security mock drill was conducted on 18th March 2010.
		• Cyber Security conformity Asses-sment Infrastructure (Product, Process & People)	• Ongoing	• Eighty auditors were empanelled for audit of IT infrastructure from cyber security point of view. Security audits of Government and critical sectors are being done by these auditors.
		• Establishment of Common Criteria (CC) product testing facility and certification scheme.	• Ongoing	• CC lab accreditation process is complete. The test facility is able to conduct tests up to level 2. Preparatory work is on to enhance the security product test capability to cover CC level 4.
• Security training – basic awareness as well	• Trained manpower to implement techniques to secure IT	• Specific training facilities, training	• Ongoing	• Conducted twenty-one training programmes on topics

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
as advanced	infrastructure.	modules and content development	• Ongoing	covering Critical Information Infrastructure Resiliency, Wireless Security, Windows Security, Current Trends in Web Application Security, Identity & Access management, Threat Infiltration & Mitigation, Computer Forensics and Advanced Web Application Security, Secure coding in JAVA and PHP, Secure Code Review for JAVA and PHP applications, Linux security, Data centre security, Network security, Security information and Event management and Security architecture for system administrators. Officials from central & state government Ministries/Departments/ Govt. of Union Territories, PSUs, ISPs Banking/Financial, Judicial/Law enforcement and Critical sector organizations participated.
	• Trained manpower to collect, analyse and process digital evidence. Pre trained manpower will help in securing cyber space and check cyber crimes.	• Awareness and training programmes to facilitate information sharing to deal with crisis situations.		
• Security R&D for indigenous skills & capabilities	• Development /enhancement of skills and expertise in areas of cyber security	Research and development of indigenous cyber security solutions, proof of concepts and prototypes and skilled manpower in areas of cyber security	• Formulation & evaluation of proposals by Working Group	• Working Group was reconstituted for a period of two years with experts from Academic/ R&D organisations, Govt and user organisations to provide advisory support for implementation of R&D programme.

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
		including • Crypto Analysis & Research • Authentication • Network & System Security - Mobile • Monitoring & Forensics • Vulnerability through sponsored projects at recognized R&D organisations.		• R&D proposals were formulated in the areas of (i) face recognition system for unconstrained environment, (ii) person identification system based on speaker verification,(iii) detection of SQL Injection vulnerability in web applications, (iv) Analyzing Online Content Using Data Mining Techniques to Counter Cyber Crime, (v) Development of Integrated Security RiskManagement System for an Enterprise Network, (vi) Study of FISMA Model and suggest an appropriate framework for applying it with Govt of India, (vii) Establishment of Computer Forensic Lab and training facility in the North-East region, (viii) biometric system development and (ix) Investigation of applicability of Probabilistic Signatures for metamorphic malware detection.
			• Periodic review of individual projects	• Thirty Three on-going projects were reviewed by the respective Project Review and Steering

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
• Security incident – early warning and response (CERT-In)	• Enhancing the security of communications and information infrastructure in the country	• Rapid response, resolution and recovery • Security incident prediction, prevention and protection • Security assurance	• Continuous upgradation of CERT-In facilities and capabilities • Realtime Malware tracking and analysis	Committee (PRSG) of the on-going projects and follow up actions have been taken. • Threat Assessment and Attack Detection Solution at ISP Level to facilitate early detection of malicious activities and attacks in Indian networks is functional partially and efforts are in progress to enhance the solution. Project for Augmentation of CERT-In facilities including Vulnerability Assessment & Penetration testing Lab and Artifact Analysis Lab is under process. Process initiated to install a multi-purpose threat mitigation hardware. • Upgraded the security of the infrastructure by deploying an additional layer of firewall and IPS. The mailing system has been upgraded with the installation of the latest version. • Tracking of vulnerabilities in Operating systems, Applications such as Web/Database/Mail and Network devices is ongoing.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
			• Real time response to cyber security incidents	• Security Incident Response-Around 9147 security incidents resolved. • 7620 Indian website defacements tracked. Incident Response and Advice for prevention provided to affected organisations. • 2805 open proxy servers in India were tracked and actions were taken to mitigate the same. • Around 2874775 Bot infected systems and 24 Command & Control servers were tracked in India.
			• Alerts, Advisories and vulnerability Notes	• 46 Security alert/ incident notes issued. • **74** Security Advisories issued. • 227 Security Vulnerability notes issued.
			• Cyber Security Mock drills • Cyber Forensics	• Security Bulletins covering

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
• Cyber laws for supporting E-Commerce and E-Governance activities	• A legal framework, which will instill confidence of the users and investors in the area of Information Technology in the country will be in place.	• Creation of a Legal Framework that can effectively support growth of E-Commerce and E-Governance in the country. • Establishment, operation and maintenance of CRAT.	• Ongoing • Ongoing	various cyber security issues, intrusion trends and defence mechanisms are being published every month. • Information Technology (Amendment) Act 2008 has been enforced on 27.10.2009 and rules for important sections were also notified. • Amendments were enforced for composition of Cyber Appellate Tribunal from a single member body to 3 members body. Adjudicating officers are functioning in all states. Awareness is being created in respect of functioning of Tribunal in the states.

REVIEW OF PAST PERFORMANCE (2009-10)

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Scheme: Promotion of Electronics / IT Hardware Manufacturing **Budget Outlay:** Rs.2.30 crore (Plan) **Objective:** Promotion of Hardware Manufacturing in the country.	Supporting the setting up of Semiconductor Fabrication and other micro and nanotechnology manu-facture industries in India under Special Incentive Package Scheme (SIPS). Conducting Studies and preparation of Position Papers related to promotion of Electronics/IT Hardware manufacturing and relocation of manufacturing industries from advanced countries.	This would encourage investment in electronics/IT hardware manufacturing sector	March 2010	**Status of SIPS** 26 applications have been received under SIPS till 31 March 2010. Out these applications, 8 applications, which have been received recently, are under process. In-principle communications have been issued to 13 Solar Photovoltaic applicants. Out of these, 6 applicants have reported Financial Closure for an amount exceeding Rs.1000 crores during FY 2009-10, which is the threshold limit of investment for eligibility for subsidy under the scheme. The proposed investment from these 6 companies over a period of 10 years is about Rs 41,000 crore.

REVIEW OF PAST PERFORMANCE (2009-10)

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				Studies and preparation of Position Papers Administrative Approvals have been issued for following two proposals: a) To carry out study on Semiconductor and Embedded Design Services Industry - India Semiconductor Association (ISA) b) To carry out study on Electronics Components, Hardware Market and Manufacturing Output Study including related Assemblies & Value Chain in India - Electronic Industries Association of India (ELCINA) First installment of Rs. 6 lakh and Rs. 7 lakh has been released to ISA & ELCINA respectively.

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Scheme: Manpower Development. **Budget Outlay:** Rs.45.00 crore (Plan) (includes Rs. 10.00 crore for NER) **Objective:** **E-learning**	Development of Open source content delivery tools with advanced features **-** Web application source code in different packages, documentations made available in open source.	This will be useful for content management and delivery	Nov., 2009	Under Brihaspati-2, which is an open source, free Learning Management System (LMS), the latest release is being updated from time to time on sourceforge.net by adding new components. The sourcecode can be downloaded from sourceforge.net. So far 35 activities/ tasks have been completed of which some of activities are course expiry if course is not accessed for a certain configurable period; French, German, Italian, Korean, Russian, Telgu Marathi, Urdu, Bangla, Hindi user interfaces; backup and restoration; academic calendar – admin input module; web based interface for Brihaspati_sync related database information; assignment submission module; Quiz Generation Module; Group management system within

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				courses; multilingual chat and whiteboard GUI; multithread discussion board; Research Repository added; online Registration; update email is sent periodically to users; documentation update etc.. The Project has been completed.
	Design and Development of e-learning contents for e-security solution developers - e-Learning Contents for e-security solution developers would be designed developed and deployed on the server of C-DAC, Noida and training would be imparted/ available in the e-learning mode.	Student/ Officers/ executives/ system Administrators of State and central Govt. would be trained for developing e-security solutions. The appropriate manpower would become available in the area. Thus, the networks and the systems would be further secured.	August, 2009	The e-security contents for all 3 categories i.e. for 1st category (i.e. for Post Graduate/ Engineering students), 2nd category (i.e. System Administrators/ Officers in charge of e-security) and for 3rd category of users (i.e Scientists) has been developed and hosted on CDAC, Noida/ DOEACC websites. Imparting of training is being continuing successfully through e-learning mode to the first category of about 1000 users through constant support for queries via email and also through feedback monitoring and corrective actions. There is an excellent feedback from 1st category of users. Approximately 200 users from the 2nd and 3rd category have also registered themselves for online training in the e-security area. The

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				project has been completed.
	Training of Teachers in E – Learning by DOEACC Society - Imphal, Centre- 120 teachers would be trained under this proposal by DOEACC Centre at Imphal. They shall be able to locate and use/ reuse the course content in e-learning in their area of specialization.	The project would lead to proliferation of E-Learning in the country.	June 2009	A Computer laboratory for training of students in e-learning has been set up at DOEACC Imphal Centre. The centre has trained 121 teachers, belonging to colleges and schools, in e-learning methodology of teaching and content development. The project has been completed.
	National Competitiveness in Knowledge Economy, IIT, Roorkee. • Report incorporating recommendations for use by the Government as input for making necessary policies and programmes for the knowledge economy. • A template for collaborative and cooperative synergy amongst Industry-Academia-Government Society for realizing knowledge economy. • Report identifying new streams/ disciplines for the emerging knowledge economy etc.	The Government will be better informed for focusing on policies and programs for the future suited to emerging knowledge economy.	January 2010	All project components like conducting of Symposium, International Conferences, Seminars, Workshops, Brainstorming Sessions, Competitions, Commissioned Research and Consultancies etc. are progressing well.
	Fresh project proposals for E-Learning in the area like development			The Working Group meeting on E-Learning R&D Projects was held

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	of authoring tools, Video Compression/ decompression techniques, developing content independent of Platform and environment, Personalized Learning and content management system etc. have been received from various academic institutions, R&D labs etc. These projects will be placed before Working Group for deliberations/ recommendations before approval by the competent authority**.**			in Sep. 2009 in which out of 12 new Project proposals, 9 project proposals were recommended by Working Group of which 3 will be financially supported by DIT and another 6 would be financially supported by MHRD under National Mission on Education through Information and Communication Technology (NMEICT). Out of 3 proposals to be supported by DIT, competent authority has so far approved two proposals. For third proposal, revised proposal has been sought as per recommendation of Working Group.
Human Resource Development in the country in the area of Information Security.	• Launching/ continuation of Information Security Curriculum at B.Tech/ M.Tech/ Ph.D levels and train System Administrators; • Installation/ commissioning of Information Security labs at RCs and PIs; • Training faculty of Participating Institutes; • Train Central and State	Generate qualified IT security professionals for Industry/ Govt. Human Resource Development and awareness in the area of Information Security. Secured environment for BPO, Commerce and governance	March 2011	*Academic Activities:* • The RCs/PIs have launched academic courses on Information Security at doctoral to short-term level; So far around 25,000 students have been trained/ undergoing training in various long-term/ short-term courses at RCs/PIs. • Four (04) Faculty training programmes for PIs organized through TIFR & IISc. • MOU signed with TIFR,

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	Government Officers; and • Awareness Programmes in the area of Information Security.			Mumbai as 6th RC. • Information Security Labs set up at all the RCs and PIs. • Schemes for Travel Fellowship for attending conferences, paper presentation, short-term courses, workshops, tutorials etc. for students and faculty of RCs/PIs, and Revised Ph.D Scholarship/Fellowship for students of RCs/PIs evolved and launched. *Government Officer Training:* • Organized training of sixty (60) Master Trainers through IISc. Bangalore at ISTM, Delhi, IISc., Bangalore & CMU, USA. • Various Training Programmes for Government Officers are being conducted by six (6) Implementing Agencies. • A modular courseware on Information Security (10 Modules) for short duration training programmes has been designed/developed and tested by C-DAC Hyderabad with e-learning tool (e-Sikshak). *Information Security Awareness:*

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				• Implemented through CDAC Hyderabad • So far 84 workshops have been organized across the country covering about 3,370 Teachers/ Parents/ CSC/ NGOs, etc., and about 12,600 school children/ college students. • During these workshops, around 7,500 Awareness Kits (with promotional material and Hand Books) were distributed. • 25 posters on various topics of Information Security Awareness were designed and around 11,500 posters were distributed to target users. • A dedicated website for information security awareness (http://www.infosecawareness.in – beta version) has been developed. • Course material like guidelines for XP, Linux, wireless configurations developed. • Security e-Books developed (Security Guidebook, Security Tool Kit, Children Hand Book, Guidebook for Teachers and Parents) and made available on the web site - 720 downloads so

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				far.
				Certification Scheme for Information Systems Security Professionals:
				• A national level certification scheme for Information Systems Security professionals evolved with DOEACC Gorakhpur.
				• The scheme consists of three levels and the detailed syllabus and Practical Assignments for Level 1 and broad syllabus for other two levels finalized.
				• Level-1 of the Scheme viz. *Certified System Security Analyst (CSSA)* has been launched by DOEACC Society. The course is scheduled to commence from four centres of DOEACC Society viz. Gorakhpur, Imphal, Kolkata and Jammu/Srinagar w.e.f. July 2010.
				Miscellaneous
				• An appraisal workshop was held on 12.2.2010 at IIT Guwahati
New scheme of	• Creation of course curriculum,	Human Resource	March 2011	• Various projects under the

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manpower development for the software export industry: To create course contents; Train Mentors; generate uality faculties and produce skilled employable graduates in the area of Information Technology.	Contents and Question Bank; • Generation of quality faculty and Mentor • Upgrading skill to graduates to make employable. • Augmenting the existing infrastructure facilities for ICT training to enhance the intake capacity • Expansion of the state-of-the art facility for advanced (industry related) IT training programmes	Development in the area of Information Technology for software export industry Generation of Mentors /quality Faculty by conducting specialized short term courses in IT/ITES sector Enhancement of quality of ICT education in Engg. Colleges Virtualization of Technical Education in IT Setting up of National On-line Test System for Graduate Engineers in Information Technology		scheme are being implemented at C-DAC-Pune, C-DAC-Noida, C-DAC-Hyderabad, IIIT-Allahabad, IIITM-Gwalior, IIIT-Bangalore, IIIT-Hyderabad, State Government of Tamil Nadu, and UP Technical University. • Necessary training infrastructure like setting up of lab etc. has been created at IIIT-Allahabad, IIITM-Gwalior, CDAC-Pune, IIIT-Bangalore and CDAC-Hyderabad. The construction for training infrastructure is in progress at IIIT-Hyderabad. • Various ICT training programmes are being conducted in the area of Information System & Cyber Security, Geo-informatics, Language Computing, System Software Design, Application Software, VLSI Design, Embedded System Design, Wireless & Mobile Computing, Multimedia Creation, Advanced Computing, Management skills,

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				Personality development, IT Outsourcing, e-Contents development, Data Structure, Software Development, Faculty Updation Programme in various areas. So far, more than 7400 students/faculty have been trained/ undergoing training. • The first phase of development of 'Online Examination Software' has been completed. The testing of this software is in progress. • Summer school courses were conducted on e-Healthcare, Experts Systems Applications & Global Banking and Finance in e-World. International seminar on Empowering visually impaired through ICT and a workshop on Content development in Advertisement and Brand Management through IT Tools were conducted. Training has been conducted for teachers/research scholars/professionals in the areas of GIS, Expert Systems, e-Healthcare, Global Banking,

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				e-Content development & delivery and Advertisement & Brand Management. Also conducted training for farmers/Knowledge Workers in the area of Tele Agriculture, Tele Education, Tele Medicine, Land & Water Resource advisories, e-Governance services & Weather advisories. • UP Technical University, Lucknow has identified Nodal Centers in Uttar Pradesh and in Uttrakhand. The necessary infrastructure has been setup at these Nodal Centers. The first trial of dissemination of grid based virtualization of technical education has been completed successfully between the offices of UPTU at Lucknow and Noida. Establishing the network and testing is in progress. In addition the following projects have been initiated: • 'Setting up of ICT Academy Kerala (ICTACK)' with the

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				primary objective to train faculties in Engineering, Arts, Science, Polytechnic and ITI's and support roll out of mass based HR programme for graduates. Action has been initiated for implementing the project by the State Government.
				• 'IT Enabled Soft Skill Enhancement Training Programme to Improve Employability of Engineering and Management Students' by Anna Universities of Coimbatore and Chennai.
Human Resource Development in the North-Eastern Region	▪ Regional Institutes for e-Learning and Information Technology (RIELIT) at Kohima (Nagaland) and Agartala (Tripura) ▪ New DOEACC Centres at Shillong (Meghalaya) and in other locations	Create skilled manpower in the area of Computer Science and Information Technology and related disciplines for making available industry ready professionals and also cater to the needs of the respective state and the region as a whole.	March 2010 (RIELIT Kohima) March 2012 (RIELIT Tripura) Dec 2012 (DOEACC Shillong)	• RIELIT, Kohima is conducting BCA, DOEACC O/A level, CHM 'O' level, CCC and other short term courses. So far, a total of 1998 candidates have been trained at RIELIT, Kohima and at Extension Centre, Chuchuyimlang, Nagaland. The training activities of RIELIT, Kohima have been shifted to the permanent campus at Mereima. The construction activities of

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				Academic Building (1st floor), Girls Hostel (1st floor), Workshop, Administrative Building, etc. have been completed. The remaining construction works of Academic Building, Girls Hostel, Staff Quarters, etc., are in progress. • RIELIT, Agartala, Tripura is conducting DOEACC 'O' & 'A' level, CHM 'O' & 'A' level and ITES-BPO from temporary accommodation provided by the State Government of Tripura since December, 2008. So far, a total of 224 candidates have been trained at RIELIT, Agartala. Land for setting up of the permanent campus has been taken over from the State Government and fencing of the site is completed. Action has been initiated to appoint a Project Management Consultant (PMC) for constructing the permanent campus at Mouja Radha Krishore Nagar, Agartala.

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				• DOEACC Centre, Shillong has started short-term training courses from rented premises covering 6000 sq. ft. since December 2009 in Meghalaya State Housing & Financing Co-operative Society (MSHFCS), Nongrim Hills, Shillong. So far, 45 women trainees have undergone the DOEACC ITES (Customer Care) training programme. A total of 10 trainees have been admitted for DOEACC IT 'O' & 'A' level and CHM 'O' & 'A' level from January-February, 2010 session. • Action has been initiated for setting up of DOEACC Centre, Gangtok. A four storied building with approx. 10,000 sq. ft. built-up space has been taken on rent at Sichey, Indra Byepass Road, Gangtok. Work order has been placed for renovation of the space. The academic activity of the Centre is expected to be launched shortly.

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				• Action has been initiated for setting up of DOEACC Centre, Itanagar by hiring built up space on rent at Naharlagun/ Itanagar, Arunachal Pradesh. Action is being initiated to appoint an architect for renovation work of the space.
Setting up of ICT Vocational Centers for physically challenged children Phase II To provide computer literacy, skill development and to impart job oriented training to blind, low vision and deaf & dumb children.	The equipment available for ICT enablement includes Talking software, Screen Magnification, Talking Typing Teacher and Braille Embosser, OCR and Scanner, CC TV Print Magnifier device with TV for blind, and Assertive Listening Device and Hearing Amplification device for deaf. LAN & Internet connectivity is also provided.	The project will help differently abled children to acquire ICT skills enabling them to seek employment and earn livelihood.	About 40 centres in different states are planned by March 2010.	50 Centres have been identified in different States/UTs and installation of equipment is in final stages.
Implementation of Internationalized Domain Names (IDN) Implementation of Internation-alized Domain Names in Indian Languages under .IN Registry	Internationalized Domain Names in Hindi, Marathi, Bangla, Assamese, Tamil, Malayalam, Urdu, Telugu & Kannada Languages to be launched	Increase in the number of internet users Hosting of larger number of local language websites, Potential development of search engines in Indian languages and Overall increase in the number of users on the	Ongoing activity Work on creation of language character tables for Gujarati, Punjabi, Oriya, Telugu and Kannada under	The IDN ccTLD for several languages viz. Hindi, Bangla, Tamil, Punjabi, Urdu, Telugu & Gujarati is under process for launch by June, 2010.

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		internet.	finalization.	
			Validation and identification of the .IN Registry as the agency mandated for IDN ccTLDs in Indian Languages under process.	
Quality of Service Nationwide Network Testbed Establishing countrywide Quality of Service (QoS) networks for IT based applications and services.	Establishment of architecture, bandwidth protocols best suited for assured Quality of Service (QoS) for Applications viz, Distance Education, Voice over IP and Videoconferencing	Establishment of a set of Standards, protocols for QoS assured networks for IP based applications and services namely, Distance Education, Voice over IP and Videoconferencing	Project closure under process QoS guaranteed network architecture established for testbed network and Project objective of demonstrating remote classroom included for project	Project completed. MPLS network testbed established in the ERNET backbone.

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			completion in March 2009.	
Governmental Advisory Committee (GAC) Secretariat Activities To provide and maintain GAC infrastructure such as website and mailing servers.	The GAC Secretariat is established in DIT, India and the website www.gac.icann.org is Operational. Supports in Policies for ccTLD Registries; WHOIS and personal data; Generic Top Level Domains (new registry services, creation of new TLDs etc.); DNS Root Server system and DNS Security, etc.	The GAC Secretariat would help provide capacity building & outreach functions on public-policy issues on Internet proliferation.	Ongoing activity	The Secretariat is functional satisfactorily.
Connecting ERNET India with European Research network GEANT To facilitate direct connection between the two region to support current and potential cooperative research activities	To set up more collaborative research networks with reputed academia and research institutions of other EU countries.	Ongoing activity. The ERNET-GEANT link has been upgraded to 100 Mbps to meet the increased requirements of Indian Scientists. The bandwidth will be raised to 1Gbps after demand analysis. Collaborative research by scientists and experts of participating academia and R&D communities in real-	Project has been extended for one year i.e upto March 2010.	The ERNET-GEANT link has been upgraded to 175 Mbps to meet the increased requirements of Indian Scientists.

REVIEW OF PAST PERFORMANCE (2009-10)

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
		time R&D environment.		
Internet Governance Forum (IGF) Representing the concerns and requirements of India in the Forum meets	Setting up of an IGF India Chapter India's position on the concerns of Internet and its Governance to be highlighted through active participation of all stakeholders in workshops, meetings and exhibition.	Generation of Awareness on Internet Governance and Policy issues among the citizens of India and promoting their active participation at global meets.	Annual workshops and seminars in the five-year plan.	The activities on awareness/ training and workshops have been organized in collaboration with industry associations and civil society on the issues of access, security, multilingualism of Internet and other IGF issues.
R&D for development of self managed networks To carry out research in the area of network measurement & QoS and to develop Self-managed solution	Development & demonstration on a network testbed • Software Self Managed System • Self Managed Appliance • International Research Publications	The outcome of the project is inline Vertical research in Autonomic Computing and Self-Management, Self-configured networks, Self-organized service deployment for Next generation operation support systems, Integration and Middleware technologies for Management.	The prototypes of monitoring agent and analyzer ready and under test on a network testbed	The project objective was extended to also test the tools in wide area network. Tests being carried out in BSNL networks.
Setting up of Trans Eurosia Information Network (TEIN)	1Gbps connectivity will be	Establish collaborative	December	Trans Eurasia Information

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
connectivity. To provide connectivity between Europe and India	established between Europe and India	research in the areas of atomic, nuclear and medical sciences between Europe and India	2011	Network (TEIN3) for 2.5 Gbps connectivity has been be established between Europe and India and between Singapore. SFC proposal for implementing the connectivity is under consideration.
Digital Library Initiatives – Digitization / preservation and web enabling of Copyright free data available in physical form	**Digitize:** - 10-15 Million pages Providing bandwidth connectivity to IISc., President House library, IIIT, Hyderabad, IIIT, Allahabad, C-DAC, Noida Hosting the DLI web site for accessing the digitized data	Strengthen Country's identity by digitally preserving the national heritage and intellectual output	March 2010	- Digitized 87.35 Lakh pages and recorded 80 hours of audio - Connectivity provided to nodal centers - Digitized Data hosted on DLI web site
	New Project Digitize around 15-20 Million pages	Strengthen Country's identity by digitally preserving the national heritage and intellectual output	March 2010	
Scheme: Headquarters **Budget Outlay:** • Secretariat & Bldg.: Rs.31.30 crore (non-	• To meet running expenditure of the Secretariat and Plan Schemes • CST re-imbursement of STPI units • To organise exhibitions abroad for promotion of Trade	• To run office smoothly. • Export promotion • Trade promotion		On continual basis

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Plan) & Rs.30.40 crore (Plan) • Foreign Trade: Rs.3.10 crore (Non-Plan) • Exhibitions: Rs.0.80 crore (Non-Plan) • Others - Seminars/ Workshops: Rs.0.50 crore (Non-Plan)	• To organise seminars/workshops for development of electronics in IT	• Development of electronics in IT		Till date Rs. 33.00 lakh has been incurred
Scheme: National Knowledge Network (NKN) **Budget Outlay:** Rs.600.00 crore (Plan) (includes Rs. 60.00 crore for NER) **Objective:** The objective of the National Knowledge Network is to bring together all the stakeholders in Science, Technology, Higher Education, Research & Development, and Governance with speeds of	NKN will interconnect all institutions engaged in research, higher education and scientific development in the country, over a period of time. The output of the project will be a high capacity countrywide Infrastructure at education & research Institute level, which will be available 24x7 to support education and research application, and other application as envisaged by these	The NKN will facilitate the knowledge sharing, collaborative research, countrywide classrooms (CWCR) etc. and help the country to evolve as Knowledge Society. This will also contribute in socio-economic activities of	March 2010	**Achivements:** In the initial phase, a core Backbone consisting of 15 Points of Presence (PoPs) have been established with 2.5 Gbps capacity. Around 66 institutions of higher learning and advanced research have already been connected to the network and 6 virtual classrooms were setup.

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Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
the order of gigabits per second coupled with extremely low latencies; through PoPs in the respective institutions/ organisation.	institution which require very high bandwidth. • Creation of 80 NKN PoPs. • 500 more Institutions • Creation of Special Purpose Vehicle • NOC & DR NOC will be established.	the country indirectly.		In addition the following technical aspects have been covered: (a) NMS facility, (b) Domain Naming System,(c) Internet connectivity,(d) Garuda Migration, (e) DAE (ANU NET) Migration, (f) WLHCG migration (in planning phase). **<u>Final Phase:</u>** Cabinet Committee on Infrastructure in its meeting held on 25th March 2010 has approved the establishment of the National Knowledge Network (NKN) at an outlay of Rs. 5990 crore to be implemented by NIC over a period of 10 years. Administrative approval was issued on 30.03.2010 and Rs 240 cr was released in FY 2009-10.
Scheme: National Informatics Center (NIC) **Budget Outlay:** Rs.550.00 crore (Plan) (includes Rs. 61.00 crore for NER) **Objective:** Provide wide range of E-	**Cyber Security** • Network and application security audit, Co-relation of security	Enhanced security on NICNET, Monitoring	Procurement March,2010	• Cyber security is a continuous activity across the

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
Governance infrastructure and services in the country at various levels right from central government, state governments to district admin-istrations in their initiatives towards providing Good Governance to the people.	events, End point Security, Deployment of Security at District Centres	setup, Security at client end		Country. • Implementation of Security solution for enhancing security through high-availability at IDC infrastructure at HQ is completed. • Carried out Monitoring, analysis and Co-relation of security events of different security solutions in NICNET. It is a continuous activity. • Network security audit of critical Government Ministries carried out. • Security analysis tools for Malware analysis procured and deployed. Completed. • Carried out 1151 levels of Security audit of Websites hosted in NICNET Data Centres • Procurement process for source code of scanning software is in progress • Help Desk Centre is securing applications hosted in

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				NICNET Data Centres using automated scanning tools. It is a continuous activity. • Provision of proactive detection of application security vulnerability hosted over NICNET. It is a continuous activity.
	Ceritifying Authority at National Informatics Centre • Setting up of Registration Authorities (RA)	DSC Subscribers will be serviced by new RA office in selected states	Procurement March,2010	RA at NIC Lucknow and at Variable Energy Cyclotron Centre (VECC), Kolkata, are operational
	Computerisation of Land Records • Integration model of Land Record, Registration and Cadastral maps	Enhanced Usability, optimisation of application	October 2009	Completed
	• Security audit of Land Record Software for 5 States	Availability of secure software.	July,2009	Completed
	Videoconferencing infrastructure development • Augmentation of VC facilities	Procurement of	Procurement	• VC Management System

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	and Up- gradation of Equipment and VC management systems in districts.	Various VC systems and VC Management Systems and other related equipment.	Sept,2009	has been procured and installed. 186 VC systems for Various Districts have been installed
	• Decentralization of Videoconferencing facilities by Providing MCUs to selected States	MCUs for State Centers for VC operations.	Procurement Jan 2010	• 18 MCUs were procured and installed at State units
	• Deployment of High Definition VC systems for all State Capitals and other important location for Multipoint facility	Procurement of HD VC systems for Important locations	Procurement March,2010	• Completed for States of Punjab, Maharashtra, Chhatisgarh, Tripura, Nagaland, J & K & Madhya Pradesh.
	Remote Sensing & GIS • GIS ICT Infrastructure, Deployable GIS data, Meta Data Raster as well as Vector GIS Services over NICNET for E-governance & planning	Customized GIS data products and services over NICNET for E-governance & Planning. GIS application training,	Development and procurement March ,2010	• All Targets Accomplished • Transformation of Spatial Data from Everest Datum to WGS 84 Datum for bringing data in Open Series Map format for citizen/public services. • Completion of Sports Infrastructure Mapping

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
				• Creation of GIS data products of state wise mosaic of digital topographic layers in 1:50 K • Enhancement of Image (raster) as well as Vector GIS services over National GIS portal • Release of Open Source GIS portal services • **Launch of Ground Water Information System by Hon'ble Union Minister of Water Resources on World Water Day 22nd March, 2010.** • New GIS initiatives for mining , national river conservation, Telecom Infrastructure, etc.
	Utility Mapping Project • Basemap updation of Delhi City, Field Data Photogrammetry data Digital Basemap data • Utility Mapping of the six cities(Kolkata, Bangalore, Chennai, Mumbai, Hyderabad and Ahmedabad) House	Field data collection	Data Collection/ updation March, 2010	Base map updating for South West Delhi is completed as planned. As planned, Utility data overlaying is in progress in Ahmedabad, Chennai, Mumbai and Hyderabad. Base map compilation of Bangalore and Kolkata is also

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	DATA CENTRE • Set up state-of-art DC at NIC, Delhi	Accommodate increased net based applications.	Procurement March, 2010	completed In-principle approvals taken from Planning Commission and DIT for setting up of Data Centre; In the process for getting EFC approvals; Tender being process.
	• Data Centre at Pune			Operational.
	• Data Centre at Bhubneshwar			Site study Completed.
	ASP Service • Enhancement of "Applications Service Provider (ASP)" Infrastructure	Enhancement of e-gov. applications and services delivery levels.	Procurement August, 2009	Completed.
	High Speed Terrestrial Circuits • 285 Districts will have 45/100Mbps connectivity from respective State centers	Increase of connectivity capacity and bandwidth.	Procurement March,2010	Order has been placed for 174 districts on BSNL.
	• Total 450 districts will have STM1 channaelised connectivity to extend Last connectivity.			All 450 districts have been extended with STM1

Scheme/Programme, Budget Outlay & Objective	Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.03.2010
	NICNET International Gateway Project • Gateway Bandwidth will be upgraded to 2.5 GBPS and also redundancy done with respect to ISPs will be achieved	Gateway Bandwidth upgradation	Procurement March,2010	Accomplished.
	Last-Mile Solutions Project The complete NICNET shall be QOS enabled and all MPLs features will be enabled.	Improvement of quality of service.	Procurement March,2010	Completed as planned
Scheme: Facilitation of Setting up of Integrated Township **Budget Outlay:** Rs.0.11 crore (Plan) **Objective:** Information Technology Investment Regions (ITIRs) will be set up in different States	Setting up of integrated townships, IT/ITES units in the ITIR region	Will help provide productivity and employment generation	2011	3 proposals have been received in DIT one each from the state of A.P., Karnataka and Orissa.

4.2 Review of Past Performance 2010-11 (Up to December, 2010)

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
1.	Microelectronics & Nanotechnology Development Programme	To establish nanoelectronics & microelectronics base in the country through setting up of centres of excellence, technology development & capacity building through sponsored R&D projects in the area of nano-electronics , nanometrology, microelectronics MEMS and VLSI design.	-	100.00	-	2 new projects on Nano-electronics Centres will be initiated. 8 new large /medium/small projects will be initiated. The on-going projects will be continued towards their completion. Establishment of two Nanoelectronics Centres at IIT Bombay and IISc Bangalore will be completed	It would enable to create a strong R&D base in nanotechnology in the country.	Sep. 2010 October 2010 March 2011	**Nanotechnology** • 2* project on Nano-electronics Centres has been initiated. (* One project started in March 2010 itself as funds were made available) • 8* large /medium/small projects have been initiated. (*3 project were initiated during Feb-Mar 2010 itself as funds were made available) •Establishment of two Nanoelectronics Centres at IIT Bombay and IISc Bangalore is in advance stage. • Two projects have been completed and their closure is under progress. **Microelectronics** • Three projects have been completed and their closure is under progress. **Digital Programmable Hearing Aid** • 30 prototype ASIC devices

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
									fabricated
									•ASIC validation & testing of DPHA process
									•Design & fabrication of DPHA PCB & Test Jig completed
									•Design & Engineering of BW-DPHA product (including PCB, enclosure) in progress
									•Procurement of Test equipments completed
									•Enhancement in SRUTHI DPHA programming software under progress

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
2.	**Technology Development Council (including ITRA)**	**IT for Industrial Applications** To strengthen local base for R&D/ application in Electronics and IT in the field of Industrial Electronics, Agriculture and Water Resources.	-	79.00 includes Rs.8.00 crore for NER	-	**National Mission on Power Electronics Technology Phase II (NaMPET II)** • Initiation of the Phase-II project • Initiation of replication activity of the Full Spectrum Simulator (FSS) Technology • Initiation of replication activity for Distribution / Generation Area • Initiation of collaborative projects with user agencies • Holding of short-term courses • Initiating remaining	Enhancement of R&D infra-structure and design capability in the area of Power Electronics Technology contributing to design-led Electronics Hardware manufacturing.	May, 2010 June, 2010 November, 2010 December, 2010 June, 2010 Oct., 2010 Jan., 2011 August, 2010	Initiation of NaMPET-II has been delayed as NaMPET-I was extended up to August 2010. NaMPET-II proposal has been examined by Working Group on Industrial Applications and recommended for funding by DIT. Revised proposal received and SFC Note for NaMPET-II is under preparation for putting up for approval in Feb. 2011.

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						projects following technology roadmap			
						• Sixth Industry-Academic Meet		Oct., 2010	
						Application of Electronics for Agriculture & Environment (e-AGRIEN) (expected to be approved in 2009-10)	Enhancement of R&D infrastructure, design capability and demonstration on application of electronics for agriculture and environment.		Project was initiated in March, 2010 with outlay of Rs.14.75 Cr. for 60 months duration.
						• Finalizing technology roadmap for the programme		May, 2010	Technology road map finalised
						• Initiation of development activities as per roadmap		August, 2010	Project activities initiated
						• Initiation of a technology demonstration project		Feb., 2011	Four projects initiated after approval by National Steering Committee
						• Completion of infrastructure		March, 2011	In progress

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Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						upgradation at C-DAC (Kolkata)			
						• 1st workshop/seminar		Nov, 2010	1st Workshop held in January 2011
						Automation System Technology Centre (ASTeC)	Demonstration and availability of cost-effective solutions of Automation Technologies to Indian user & manufacturing industries.		
						• Completion of Color Sensing System including online field trial		April, 2010	Project completed after extensive trials in a Paper Mill
						• Completion of development of object oriented Modelling and Simulation Platform		April, 2010	Project completed after testing & trials.
						• Completion of Lab and field trials of all the major technology modules under development		Nov, 2010	9 products (*i*WACS, *i*CON, *i*SMART, *i*Gate, *i*Loc, *i*CoSS, *i*WiSe, *i*Wase and Simulation Platform) / technology modules are launched. Field trials of *i*CoSS and Simulation Platform modules completed. Field trials of other products are delayed due to non availability of plant site at NLC.

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						• Completion of development of Advanced Process Control Library and porting of algorithm into developed hardware		Nov, 2010	Development and porting of 3 algorithms viz. EPID, GSPID, Auto tuning PID in *i*SMART completed. Porting of 2 algorithms (FLC & MPC) in progress. Lab testing done. Evaluation and acceptance of algorithms going on. Project duration extended up to Feb 2011.
						• Holding of 3rd Industry-Academic interaction		December, 2010	International Conference and Tutorial on System Modeling, Optimistaion & Adanvced Process Automation (SYMOPA-2010) held on 16-19 Dec., 2010 at Trivandrum.
						Intelligent Transportation System (ITS) ● Launching of web portal of ITS	Demonstration and availability of cost effective IT solutions for the road transportation sector	March, 2010	ITS web portal launched.
						• Upgradation of infrastructure at nodal center		June, 2010	Lab upgradation is in progress. Extended up to March 2011.
						• Conduct of first		Sept., 2010	Organized on 25-26th June 2010 at Pune

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						National Conference on ITS			
						• Completion of design activities for the Wireless Traffic Control System project		Oct, 2010	Design activities completed. Proto Testing in campus in progress
						• Development and validation of Traffic Simulation Software (2G – CoSiCoSt)		December, 2010	Open source traffic simulator Sumo identified. Architecture being studied to suit Indian conditions and to incorporate ATC into the simulator
						• Completion of field erection activities of Real Time Traffic Counting and Monitoring System		January, 2011	Lab testing of loop detectors completed. Loops installed in one trial site and data collected. Improving the processing time and the accuracy of the video processing algorithm is in progress.
						• Completion of Intelligent Parking Lot Management System		December, 2010	Design activities completed. Proto testing completed.
						• Completion of System Architecture Development on Advanced Traveling		May, 2010	Preliminary architecture for the overall ATIS system and sub-systems for the study corridors has been defined. Issues relating to data collection, processing and dissemination finalised.

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						Information System		Jan., 2011	Test runs on the study corridor using a probe vehicle were conducted to examine the potential for alternate routing.
						• Completion of Data Collection for the above project.			
									Detailed drawings of geometric characteristics of intersections and mid-block sections of the study corridors are nearing completion
		Free & Open Source Software (FOSS) Initiative Development and proliferation of Free/Open Source Software (FOSS) in India for bridging the digital divide.				Ongoing projects under NRCFOSS Phase II will be progressed.	1. Proliferation and adoption of FOSS in the country will be facilitated.	March 2011	1. Open source operating system BOSS/Linux Desktop 4.0, with added features and support for all 22 constitutional languages in BharateeyyaOO brought out. BOSS deployments in e-Governance and Education domains 2. NRCFOSS portal launched.
						Launching of NRCFOSS Portal as a platform	2. Collaboration on FOSS related activities in the country would increase.		

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						Awareness and popularisation of FOSS in schools.	3. Use of FOSS would increase.		3. A project titled "CBSE Trainers Training & Students Talent Transformation" has been initiated jointly with CBSE for FOSS based education in schools.
		Emerging Areas in IT To build and enhance competencies in Emerging Areas of Information Technology				**Nurturing New Areas.** Ongoing projects in the areas of Smart Cards and RFID will be progressed.	Adoption of RFID in various applications would increase.	July 2010	The project was successfully completed. Parcel Tracking System has been implemented for Department of Posts in six cities i.e Delhi, Mumbai, Chennai, Kolkata, Hyderabad and Bangalore covering 140 post offices. CDAC Noida has also implemented in-house people attendance system and Bio Medical Waste Management system.
						Ongoing projects in scientific computing, ubiquitous computing and perception engineering will be progressed.	Competencies to develop applications in the area would increase.	October, 2010	A few new project proposals are being processed for consideration of funding by evolving and examining through appropriate committees.

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						Projects would be initiated to develop technologies for Digital Preservation	Technologies for preservation of Born digital data would be available.	September, 2010	15 ongoing projects are being closely monitored as per DIT norms and PRSG meetings.
						Projects would be initiated for use of ICT for low carbon emissions.	ICT for low carbon emissions in specific domains	June 2010	Project has been initiated for development of ICT technologies for Smart Buildings with low carbon emissions.
						Expansion of TIDE scheme will be taken-up.	Promotion of start-up companies	Dec 2012	Projects are Progressing
		E-Commerce The program would result in proliferation of e-commerce in the long run				Ongoing projects on mobile commerce would be progressed.	Proliferation of m-commerce in the country.	March 2012	The 17 institutions are being supported under TIDE scheme.
						Profile of IPR filed and Granted	50 IPRs to be filed 25 Cases to be	March 2011	Progressing 191 IPRs filed

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
		IPR Promotion Programme				SIP-EIT Scheme to provide support to SMEs for filing International Patent	Processed.	March 2011	
							10 Seminars		10 cases processed
						Conduct of Workshops/ Seminars for IPR awareness		March 2011	
									06 Seminars held
						New projects to be initiated.		March 2011	
							Enhancement of Quality of Research and Education in the country.		02 new projects are being formulated.
						Establishment of ITRA HQ		September, 2010	
		IT Research Academy (ITRA) To build a National Resource for advancing the quality and quantity of R&D in IT and Electronics				Identification and initiation of four Participating Institutions.	Generate a pool of Doctorates in IT and Electronics for R&D and academic purposes.	March 2011	A project steering Implementation Group(PSIG) is being setup for the implementation of the project.
									ongoing
						Identification and initiation of eight Research Groups		March 2011	

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Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
		Bio-informatics Initiative To enhance research capabilities in Bio-Informatics in the country.				1. Three Centres of Excellence for Research and Training have been established to develop S/w tools and databases to help in Genomic Research, Drug Designing and preserving Biodiversity and impart skill set through modular courses and seminars/ workshops.		Workshop on Immuni-informatics. Sep, 2010 Seminar on Computational Biology Sep, 2010 Databases and s/w tools for Immune Epitope Prediction and Peptide Binding proteins. Dec, 2010. Development of tissue cell specific prediction program for genes. Mar, 2011	Ongoing Achieved Achieved Achieved

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						2. Computational Workflow for High throughput Genome Analysis		Bioinformatics applications for molecular basis of Type2 Diabatics mellitus. Mar, 2011	Ongoing
								Conducting Modular courses. Continuing Process.	Ongoing
								Basic Prototype readiness. May, 2011	Ongoing
								Rules Engine Enhancement .Dec, 2011	Ongoing
								Testing using Large datasets	Achieved

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						3. Agri-Bioinformatics Promotion Programme, 5 Centres have been set up.		March, 2011. Bio-informatics approaches for identification of Resistant gene in crop Genome-Data collection literature survey. March, 2011	Ongoing
								Establish-ment of databases for Indian Wheat genotyoes and DNA based markers in wheat-design and data-collection. March, 2011	Ongoing
									Ongoing

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
								Insilico Characterization of endangered and rare medicinal plants of Gujrat-database creation. March, 2011	Ongoing
								Database development and annotation of pigeonpea-data collection, data updation March, 2011	Ongoing
								National Workshop on crop Genomics Jan, 2011	Scheduled

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
								Workshop on Bioinformatics in Plant Research Sep, 2010	Achieved
								Seminar on Agribioinformatics Tools Sep, 2011	Achieved
								Skill set inculcation through training. Continuing Process	Achieved
						4. North East Parasite Information and analysis Center - an insilico approach.		Data updating and Curation. May, 2010	Ongoing
								Beta Release of database and Workshop on Database created.	Achieved

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						5. Development of microbial database of North East India		March, 2011 Isolation of microbes, biochemical and molecular characterization Aug, 2010. Score sheet preparation and initiation of database. March, 2011.	Ongoing Ongoing

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
3.	Convergence, Communication Broadband and Strategic Electronics	To undertake R&D in Convergence, Communication & Broadband Technologies and Strategic Electronics.

The outcome of R&D projects will result in establishing capability in emerging technologies bringing economic benefits and e-inclusion, safety, security and improved quality of life.

The R&D will lead to excellence in state-of-art | - | 25.00 includes Rs.3.00 crore for NER | - | Initiation of 20-25 projects in development/application of the next generation wired /wireless communication & broadband technologies such as SDR, Cognitive Radio, MIMO, OFDM, Wi-Fi, WiMAX, WSN, UWB, TETRA, Broadband on Power Line, NGN & projects in applications for disaster management, safety, security, surveillance and robotic systems.

To arrive at specifications for users suiting to Indian conditions, demonstration and testing of new products and technologies developed.

Execution of MoUs and Transfer of Technology | | On an average 6 projects in quarter are proposed to be initiated. The projects are generally of 1-3 years duration. | About 10 new project proposals will be processed for approval in the following areas:

-Next Generation Communication, SDR & Cognitive Radio
-Wireless Sensor Networks
-Converged Network, FMC & Mobile computing
-Broadband Technologies, UWB Modem/antenna
-IP based technologies
-ICT applications in strategic, surveillance & navigational aids
-Advanced Robotics for strategic applications.

There are 38 ongoing projects that are under implementation and are being monitored by respective PRSGs. |

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		technologies, creation of patents, support productionisation and cost effective deployment for both domestic and international markets.				(ToTs)			
4.	**Components & Material Development Programme**	To support Infrastructure development and R & D projects for the development of Electronic Materials	0.60	25.00	11.10	Development of liquid crystalline polymers	To develop Liquid Crystalline materials and demonstrate one application	Sep.2010	Completed
						Development of lead free x-ray absorbing coating materials for TVs	To develop lead free material for X-ray absorption	April 2010	Ongoing, Extended till April 2011 The project has been extended by 1 year, till April 2011. Lead-free x-ray absorbing compounds (Ba_2ZrO_4, $BaBi_2S_4$, and Bi_2O_3) were synthesized. Large scale batches of silicate glasses are prepared. Trails for polymer

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									adhesive coating on glass substrate/cotton cloth, coating of inorganic material using oil/water base nitrocellulose, ethyl cellulose, commercial colour guard on cotton cloth, etc. were conducted
						Oxide films and nanostructures for advanced sensors & energy systems	To develop photovoltaic cell for solar energy conversion	April 2011	Ongoing Cells are fabricated with oxide films of metal oxides (ZnO, TiO$_2$ etc.) and characterized for desired efficiencies.
						Studies on synthesis and characterization of p-type ZnO thin films for electronic paper and spintronix applications	To develop p-type ZnO for exploring possible application at e-paper	April 2010	Ongoing The project has been extended by 1 year, till April 2011. ZnO p-type has been prepared for characterization
						Magnetic materials for high-permeability GHz-frequency inductors	To develop inductors of high permeability and GHz frequency.	March 2011	Ongoing Capital equipments were procured and materials are being prepared & characterized for optimization

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						TMR materials and systems for very high density data storage technology and spintronic devices	To develop TMR materials for information storage, and emerging technology	March 2011	Ongoing Tunable spin transport medium based on doped transparent conducting oxides developed. Half-metallic CrO_2 & $La0.67Sr0.33MnO3$ were grown to understand the fabrication of TMR materials. Development of magnetic semiconductors with tunable ferromagnetic behavior are being studied
						Synthesis of Nano NTC material and development of chip in glass fast response thermal sensors	To develop fast response nano NTC sensors	March 2011	Ongoing NTC thermistor composition ($NiMn_2O_4$) was synthesized & characterized to aim target material for thermal sensor
						New Initiatives Preparation of Carbon Aerogel and Development of Aerocapacitor for Electronic Applications	To develop the aerogel capacitor	April, 2010	Initiated in May, 2011
						Design & Development of Piezoelctric Multilayer Actuator for	To develop Piezoelctric Multilayer	April, 2010	Initiated in May, 2011

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						MEMS based Micro valve	Actuator for MEMS based Micro valve		Initiated in May, 2011
						Synthesis and Development of Broadband EMI shielding materials using Magneto-dielectric Nanoparticles	To develop Broadband EMI shielding materials using Magneto-dielectric Nanoparticles	April, 2010	
						To initiate new projects on Electronics materials and components		September, 2010	Initiated in May, 2011
		To support development and initiatives to eradicate the issues related to electronics				Establishment of testing facilities for the hazardous substances as per European Union (EU) Directive of	To establish a centre for testing of hazardous substances and	October 2010	Two more new projects, namely, "Environmentally sound methods for recovery of metals from Printed Circuit Boards" at C-MET, Hyderabad and "Hybrid solar cells based on organic polymers and Inorganic Nano particles" at C-MET, Pune have been initiated along with industry participations. Extended till October 2011 Purchasing of the capital equipment is completed. NABL accreditation

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		products affecting the environment				Restricting the use of hazardous substances (RoHS)	RoHS certification		of one equipment is obtained. Other equipments are under progress.
		PHOTONICS				Development of processing technology for recycle & reuse of electronic waste	To develop low cost technology to recycle electronic waste	September 2010	Extended till March 2011 Optimization of processing technology of metal, plastic and glass is under progress
		To nurture photonic technologies relevant in IT and optical communication as well as develop technologies in the broader application areas of Photonics through sponsored R & D projects.				Installation of FCS Systems at 10 organizations	Spreading the base of Biophotonics for Health care	July 2010	Installation completed at 8 organizations. The systems are being utilized for research work. TOT agreement between Holmarc Cochin and TIFR (draft) put up for approval.
						Holding of second Workshop		Oct 2010	Held in 9-12 Nov 2010 at NEHU, Shillong. Expanded into National Workshop on FCS-2010.
						Completing the set up for Photo-darkening measurements in high power fiber lasers	Developing technology for High Power Fiber laser by nanoparticles	April 2010	Has Been set up

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		To support R & D projects for the development of Electronic Materials				Make operational the system for Dev of High power fiber lasers by nanoparticle Deposition		Sept 2010	Experimental set up and various measurements completed.
						Implementation of the gain flattening in the system	Development of MSA Optical Amplifier	June 2010	
						Initiate new projects in the area solid state lighting	Evolution of Green Photonics technology	June 2010	Simulation studies completed. Improvement in control circuitry completed. Characterisation done.
						Integrated Electronics Packaging Optimization of lead free solder bumping including bath composition and UBM Selection of appropriate ferrite & dielectric material for LTCC applications	Process for Integrated Glass-Ceramic Packaging	March, 2011	Project at NITK on Blue Organic OLED under Progress, working in collaboration with IICT, Hyderabad.

• Optimization of soldering process was done for connecting/ soldering the kovar pins and the seal ring to the conductor pads of the LTCC package.
• Optimization of photolithography process is in progress
• Several batches of three types of |

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						Nanomaterials and devices • Optimisation of parameters to obtain nano particles of metal oxides(ZnO and TiO_2) by Transferred Arc Plasma Reactor • A process for preparation of quantum dots of QDs of Cu_2Se and Ag_2Se in various matrices including polymers. • Bi_2S_3 doped glass-nanocomposites for X-Ray absorption. • $BaSO_4$- Polymer nanocomposite for X-ray absorption • Nanostructured $CdIn_2S_4$ as a Photocatalyst for hydrogen generation. • Development of n –	Generation of Nano-powders, Nanocomposite & Quantum dots of metals/ semiconductors/ for Electronics Technology and allied applications	March, 2011	ferrites were prepared and characterized for their dielectric properties, VSM studies, Squid and XRD analysis. • Al nano particles were synthesized by varying the quench conditions and reactor pressure and characterized by using SEM, AFM and XRD. • The characterization of silver selenide samples by IR, XRD, TEM has been completed. • Hydrogen generation study was done using nanostructured marigold shaped $CdIn_2S_4$ as a Photocatalyst. • Quantitative X-ray absorption study of $BaBi_2S_4$ coated apron was carried out. • Fabricated p type copper aluminium oxide transparent films by dip coating technique • Three types of Chip thermistors of five different B-values were made and samples submitted to Sowparnika Thermistors, Kerala

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						type and p- type transparent conducting oxide thin films • Development of NTC Thermal sensors. **Ultra high purity materials** • Fine tuning and characterization of vacuum refining/ zone-refining of gallium. • Production of 7N Zn after establishing characterization of 6N purity Zn • Single crystal high purity Bi crystals of 6N purity. • Nanopowder preparation, optimization and subsequent production	Process technology/ Pilot plant scale production of ultrapure metals	March, 2011	for testing and evaluation. • 1.5 Kg/batch, vacuum refined gallium was zone refined by using horizontal rotating type zone refining system. • 6N pure Zn was prepared by vacuum distillation. • One Kg of 4N pure Bi was zone refined. • Annealing done in nitrogen atmosphere and in vacuum at 600^0C for FePt nano particles and Nickel nano particles with different compositions synthesized.

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						Materials for Renewable Energy Fabrication of aerogel supercapacitors using carbon aerogel electrodes.	Process for renewable energy material.	March, 2011	• Fabricated active electrodes for supercapacitors using carbon aerogel . • Fabricated prototype aerogel supercapacitors.
						Piezo sensors and Actuators • Development of ML bender actuator • Development of novel piezoelectric materials systems for microactuators	Process/technology for sensors and actuators.	March, 2011	• Fabricated bender actuators. • Fabricated PZT 5H thin film unimorph and evaluated its piezoelectric properties.

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5.	**Electronics in Health & Tele-medicine**	To promote development of medical electronic equipment, rehabilitation devices and Telemedicine Systems.	-	16.00 includes Rs.2.00 crore for NER	-	Establishment of batch fabrication facility for Linac machines		December 2010	Civil work and electrical fitting in progress.
						Initiation of TOT of indigenously developed medical electronics products.		September 2010	Initial screening of the prospective manufacturers completed by the SAMEER's internal screening committee
						Initiation of projects for deployment of linac machines for cancer treatment.		February, 2011	Site preparations at Amaravati, Indore and Madurai hospitals are in progress. Siddharth 3 Linac is being integrated and tested at SAMEER Mumbai
						Initiation of new R&D projects in the area of Medical electronics & Telemedicine.		March 2011	Proposals received and are being screened for consideration of the Working Group

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6.	**Technology Development for Indian Languages**	The major objectives of the programme are: (1) To develop information processing tools to facilitate human machine interaction in Indian languages and to create and access to multilingual knowledge resources/conte nt. (2) To promote collaborative development of futuristic technologies leading to innovative products and services.	-	35.00 includes Rs.4.00 crore for NER	-	Machine Translation system , Cross-lingual Information Access System , OCR and OHWR with increased accuracy and performance towards product development	Consortium Mode Projects – Phase –II in the areas of Machine Translation , Cross-lingual Information Access , Optical Character Recognition and OHWR	Sep 2010 / March 2011	Four Projects on Machine Translation and OCR approved. Others under approval process.
						Support for CD user base Percolation of CDs to new spheres . Reviewing of CD Contents & also upgrades of open source regions	National Roll-Out Plan Phase-II	Sept. 2010	Project being implemented
						To take up for additional languages	Automatic Speech Recognition (ASR) and Text-to-speech systems in Indian	Dec 2010	Project Approved

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							Languages		
						Research & Development for, promotion and proliferation of Localization in official languages, Dev. Of localization tools showcasing Laboratory etc.	Establishment of National Localization Research and Resource Centre (NLRRC)	Dec 2010	(1)International Conf 'Action Week for Global Information Sharing' held during Dec 6-7, 2010 (2) Certified Localization Professional Training Programme was held during the Conference. (Dec. 1-4), 2010 These are seeding activities towards establishment of NLRRC.
						On-Going Projects Stake holders consultation and Validation of the following : Script Grammar for 10 Indian languages. Common local data repository for major Indian languages. Language tag representation for all Indian Languages. Consolidation of inputs for internalization in W3C standards namely CSS, PLS, Xforms,	Web Internationalization , Standardization and W3C India Initiative	March 2011	Ongoing. Focused Workshop on W3C Web Accessibility standard (WCAG 2.0) and its proliferation held on Dec 2010.

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						XHTML and E-Gov activity.			
						H/W Infrastructure will be setup TDIL website & Data centre front end will be ready.	Indian Language Technology Proliferation & Deployment Centre	March 2011	DataCentre launched
						1. Web Deployment of CLIA system in 5 Indian Languages. (Hindi, Marathi, Tamil, Telugu, Bangla) 2. OCR in 6 Indian Languages (Punjabi, Malayalam, Telugu, Tamil, Bangla, Hindi) 3. OHWR in 3 Indian Languages (Hindi, Tamil, Kannada,)	Consortium Mode Projects in the areas of Cross-lingual Information Access, Optical Character Recognition (OCR) and On-line handwriting Recognition systems	Sept 2010	CLIA system deployed on web. Alpha versions of OCR and OHWR developed.
						10,000 Synsets in 4 Languages	Development of Word-net for Languages of the North East	March 2011	Project under implementation

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						• POS Tagset standard • Annotated text corpora of 1 lakh words in 11 Indian Languages	Indian language Corpora Initiative	March 2011	Ongoing • POS Tag Set for 5 Indian Languages Hindi, Bengali , Punjabi , Marathi and Telugu languages developed. • 30,000 sentences corpora compiled.
						Pre Alpha version of Text-to-speech systems for 5 ILs (Hindi, Marathi, Tamil, Telugu, Malayalam)	Development of Text-to-Speech in Indian languages	Dec 2010	Ongoing Proof of Concept Technology demonstration of TTS for five Indian Languages –Hindi , Tamil , Telugu , Bengali and Marathi completed.
						100 hours of Bodo speech Corpora and IPA representation of Bodo language would be developed.	Development of Bodo Speech Corpora and its IPA representation	Sept. 2010	50 Hours recording completed. Draft IPA Chart for Bodo developed
						Draft Script Grammar for major Indian languages A generic software develop environment independent of application/platform to	Development of Fonts, Keyboard, Script , Grammar for major Indo-Aryan Languages	Sep 2010	Key combination for New Rupee symbol ` on Qwerty Keyboard finalized by BIS.

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						support development of versions NLP applications. Pre- alpha version of NLP Dashboard	Dashboard Development Environment for NLP Applications	March 2011	Ongoing
						30 numbers of trained manpower in the area of Language Technology	Human Resource Development in Language Technology	March 2011	Ongoing
						Pre- alpha version of MT System	Development of Sanskrit Computational Tool Kit and Sanskrit-Hindi Machine Translation system	Dec 2010	Ongoing
						Draft CLDR , Fonts, Keyboard layout & drivers for Assamese, Bodo, Manipuri and Nepali	Development of major North-Eastern Languages (NE Consortium).	Dec 2010	Ongoing. CLDR for Bodo , Manipuri and Assamese language developed. Initial data of Bodo language added in UNICODE CLDR 1.9.

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7.	**IT for Masses (Gender, SC/ST)**	Upliftment of Women folk and SC/ST	-	14.00 includes Rs.2.00 crore for NER	-	To conceive and formulate projects for development of Women and SC/ST.	Capacity building of Women and SC/ST through Infrastructure development, Training and Entrepreneurial creation of target groups in different States/ UTs.	3 new projects March, 2011	• Capacity Building for improving the Employability of Women in ICT Area at Cuttack and Puri in Orissa. • IT Infrastructure creation in hostels for "Kasturba Gandhi Balika Vidyalaya" in Rajasthan.
8.	**Media Lab Asia**	To bring the benefits of the information and communication technologies and other advanced technologies for the benefit of the common man.	-	10.00 includes Rs.1.00 crore for NER	20.00	IT related education & livelihood generation projects in North-East. Completion of ongoing projects	All the areas mentioned will be acted upon.		**1. Livelihood Generation:** **1.1 Project- 'Development of a set of alternative ICT models based on a study and analysis of the major ICT initiatives in agriculture in India to meet the information need of the Indian farmers'.** ▪ Detailed field survey of 18 ICT initiatives in agriculture completed in states viz. West

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									Bengal, Jharkhand, Uttar Pradesh, Punjab, Madhya Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu, Pondicherry and Kerala. ▪ Report preparation started and statistical analysis of field data was made available. **1.2 'Chanderi Weaver ICT Resource Centre' in Madhya Pradesh"** • Created 150+ Chanderi designs (library) using CAD software & 168 apparel designs with help of local weaving community. 11 master designers trained. • Training provided to 250 students (design making at Weaving Level & Textile Design), 800 students (Vocational skills), 850+ students (English program and Computer training). • Marketing for finished products is on through Center outlets & e-commerce website

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									www.chanderiyaan.net **1.3 "Chanderi Integrated ICT for Development Programme in Madhya Pradesh"** *ICT in social entrepreneurship program:* Setup for block printing, weaving & embroidery work established. 80 people on embroidery work, 20+ people on Block Printing on clothes and 67 people in computerized integrated embroidery design trained *ICT in Healthcare program:* eDhanwantari (Distributed Telemedicine software) along with multipurpose medical kit deployed for connecting existing public health facilities in Chanderi with Ashoknagar hospital *Chanderi Digitization program:* Local Chanderi Community Portal http://chanderiyaan.chanderi.org & Chanderi tourism portal www.chanderi.org developed.

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									1.4 Gramin Gyan Kendra (GGK): Integrated Agricultural Service Program taken up through all GGKs in Mirzapur, Sonbhadra and Varanasi districts of Uttar Pradesh. **2. Empowerment of the Disabled:** **2.1** Handheld DAISY (Digital Accessible Information System) Players "Buddy" facilitated at Gangtok & New Delhi centers of National Association for Blind (4 Nos. each) along with complete CBSE curriculum of 9th - 12th standard in DAISY format. Regular feedback from students is taken to update the firmware of the player. **2.2** Project "Women Empowerment through Shruti-Drishti" completed with installation & training on Shruti-Drishti along with associated hardware (Embossers, Tactile Readers, Braille Keyboards etc.) in 40 women/co-ed Blind schools throughout the country. **2.3** Under "Content Generation for

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									Capacity Building of Persons with Blindness & Low Vision", 41 Daisy books (394 hours), 69 Synthesized Books (900 Hours) generated and 385 books converted into e-Text. **2.4** Web based integrated assessment tool for MR children "Punarjjani" hosted through www.punarjjani.in **2.5** Under "National Network for Education, Training & Empowerment" the regular transmission of programs is on through edusat based channel "Navshikhar" from 10:00 to 17:00 hours (Monday to Friday) to 473 centers. Web portal "Punarbhava.in" set up as a part of project is continuously updated. **3. Healthcare:** **3.1** Distributed model of eDhanwanthari (Telemedicine s/w) deployed at 8 remote centres of Tirur Taluk & 4 specialty centres in Kerala. 350+ tele-consultations provided during the period. **3.2** The mobile telemedicine

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									facility provided at 20 locations at Cherthala taluk, kerala for treatment of TB, Diabetes, Pre-natal healthcare. 2500+ patients have been treated during the period. This service can be availed by 4.34 lakhs population of the taluk. **3.3** Rural Health Management Information System deployed at the three blocks (20 PHCs/CHCs/BPHCs, covering 7.8 lakhs population) in Kerala and 1.20 lakhs population is registered during the period. • **Education:** **4.1** All modules of Class XI under projects 'Mobile and Internet based Multimedia Content for Virtual Laboratory for Life Science Experiments for Higher Secondary Education' and 'Mobile and Internet based Multimedia Content for Math Prep-guide Application' (NCERT syllabus) completed. **4.2** All Textual Modules (English & Hindi) of project 'Comprehensive Integrated content delivery on

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									mobile & portal for Pre-Primary Teachers and Parents' completed.
						Higher order research in following areas- 1.R&DI projects 2.Education and Products for the Disadvantaged 3.e-Governance application. Lab to Land activity for deployment of MLAsia & Third party technologies Generation of IEBR			Rs. 33 Lacs of IEBR generated during the period.
9.	STQC	Establishment of Quality Assurance Infrastructure in the country to facilitate quality products & services at par	7.00	85.00 includes Rs.9.00 crore for NER	-	1.Upgradation of Test & Calibration facilities to cater to state-of-the-art products with emerging technologies 2 Revenue target realization.	Upgradation of test and calibration facility to meet the demand industry. Revenue of Rs. 45 crore approx.	March, 2011 March, 2011	List of equipment to be procured for STQC labs recommended by TEC XIV and approval of DG obtained. Procurement action being initiated. Expected to earn Rs.30 crores up till Dec., 2010

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		with global standards and practices					likely to be generated.		
						3. Upgrade s/w test facilities for e-Governance applications	S/w Test Tools for "Mission critical Project" like defense/space will be procured.	March, 2011	Software Tools required for different labs have been shortlisted by TEC (IT) and approval of DG obtained. Procurement action being initiated
						4. To obtain accreditation of S/w Test labs.	Kolkatta / Bangalore/other centre to be accredited for Usability Testing.	March, 2011	A2LA Accreditation obtained by IT Centres at Kolkata and Bangalore
						5. e-Security Standards /guidelines for e-Governance	E safe documents / Standards to be prepared for NIC.	Dec., 2010	5 guidelines complete and two more are under preparation. Expected to be completed by December 2010
						6. Upgrade testing and Auditing facilities for security of Network, systems, applications and websites	Tools and skills to be upgraded for better services	March, 2011	Application Security and Penetration Testing Tool procured for Bangalore, Delhi, Kolkata, Hyderabad and Chennai labs. Proposed for Trivandrum, Pune Labs.

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						7. Common Criteria scheme and testing facilities operationalised to take up new IT products	CC test and scheme infrastructure established for Indian industry	March, 2011	CC Evaluation Facility at Kolkata is taking up products for evaluation up to EAL 4 Assurance Level.
						8. Progress of construction activity of STQC Building at Noida.	Construction activity of first phase to be completed.	Dec., 2010	No progress. Reminder letters have already been written to STPI.
						9. Launch of Intermediary scheme for empanelment of external training provider organizations	Intermediary scheme launched. External organizations started offering STQC training programs to industry.	June, 2010	Nine intermediaries empanelled. Five courses conducted.
						10 .Human Resource Development by conducting DOEACC 'O' & 'A' level courses in NE region.	SC/ST/OBC/ women / weaker section of society and unemployed youth of NE region will be benefited in Computer field.	March, 2011	In progress.

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10.	e-Governance	The NeGP has been formulated for giving a thrust to e-Governance activities across various arms of government at the national, state and local government level. This approach has the added advantage of enabling huge savings in cost, in terms of sharing the core and support infrastructure; it enables interoperability through standards,	-	1030.00 includes Rs.103.00 crore for NER	-	**Establishment of SWAN** To provide 2 Mbps data connectivity up to Block level in all States /UTs in phases. As Part of the ongoing Scheme both leased line and wireless based network would be created across the country. Implementation activities for SWAN for all 29 States and 6 UTs have been initiated. Facility will be in place for 33 States/UTs. Goa and Andman & Nicobar has opted out from the SWAN Scheme as these States/UTs have the Local Network in place.	In general, it is envisaged that it would take nearly 180 days for completing full process of selection of Network Operator for the SWAN. The processes involved in identification of Network Operator are : Selection of Consultant, Preparation of RFP, vetting of RFP, floating of RPF, scrutiny of bids which includes pre-qualification scrutiny, technical	About 23 SWANs are expected to be operational by March 2010. All SWANs are expected to be operational by June 2010.	The SWANs in 23 States/UTs i.e Haryana, Himachal Pradesh, Punjab, Tamil Nadu, Gujarat, Karnataka, Kerala, Jharkhand, Chandigarh, Delhi, Puducherry, Tripura, Lakshadweep, West Bengal, Sikkim, Chhattisgarh, Uttar Pradesh, Orissa, Maharashtra, Assam, Madhya Pradesh, Bihar and Uttarakhand have been made operational. Implementation in 4 States / UTs namely, Manipur, Meghalaya, Mizoram, Nagaland is in progress. The 2 States namely, Jammu & Kashmir, Rajasthan have initiated the bid process to identify the Network Operator for implementation. All the SWANs are expected to be completed by August, 2011. Out of sanctioned amount of Rs. 1,964.97 crore, the Department has, so far, released Rs. 624.22 crore to 33

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		which would result in the citizen having a seamless view of Government.					evaluation, financial evaluation, identification of Network Operator, conclusion of the contract with the Network Operator etc. Further to this, implementation of network by the designated Network Operator would take anywhere between 36 weeks to 52 weeks. After commissioning of the network, the Scheme envisages operation of the network for five years. Currently		States/UTs. To monitor the performance of SWANs, the Department has mandated positioning Third Party Auditor (TPA) agencies by the States/UTs. As on date, 13 States i.e. Haryana, Himachal Pradesh, Punjab, Gujarat, Karnataka, Kerala, Tripura, Orissa, Maharashtra, Arunachal Pradesh, Bihar ,West Bengal and Chhattisgarh have empanelled the TPA agencies for monitoring the performance of the SWAN in their respective State. Remaining States/UTs are in the process of empanelment of TPA

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						State Data Centres State Data Centre has been identified as one of the important element of the core infrastructure for supporting e-Governance initiatives of NeGP. The Scheme has been approved by the Government at a total outlay of Rs.1623.20 crore over a period of 5 years. It is proposed to set up Data Centres across 35 different States/UTs in the country during the 11th Plan.	State/UT SWANs are in the various stages of implementation. Secure and reliable data Repository sharable across various applications. State Data Centre will help in providing efficient electronic delivery of G2G, G2C and G2B services.	SDC Proposals for 31 States/ UTs have been approved. Around 12-15 State Data Centres are expected to be set up and operationalis ed by December 2010. 5 more are expected to be operationalis ed by March 2011.	3 SDCs have been made operational (Gujarat, Tripura and Rajasthan). SDCs in 13 States are under Implementation (West Bengal, Sikkim, Orissa, Nagaland, Meghalaya, Maharashtra, Tamil Nadu, Puducherry, Haryana, Karnataka, Andhra Pradesh, Uttar Pradesh and Manipur). 2 States (Kerala and Jharkhand) have issued the LoI to the selected Bidder. Bid process is in progress in 6 States (Andaman & Nicobar, Madhya Pradesh, Mizoram, Uttarakhand, Jammu & Kashmir and Bihar). RFP for 5 States (Himachal Pradesh, Lakshadweep, Arunachal Pradesh Chhattisgarh and Assam) are under finalisation by the States/DIT.

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						Common Service Centres (CSCs) The Government has approved a Scheme for establishing 100,000+ CSCs, primarily in rural areas of the country. These Centres would be broadband Internet enabled and would provide all government and private services at the doorstep of the citizen. The Scheme is to be implemented in Public Private Partnership. The Scheme has been approved at a total cost of Rs 5742 crore with Government of India contribution Rs 856 crore and State	Sanction the CSCs proposals for remaining States and UTs in the country. Complete the process of establishment of 100,000+ CSCs in the country	June 2010	RFP is under preparation by the States of Goa and Punjab. Till 31st of December 2010, a total of 87594 CSCs have been rolled out in 31 States/ UTs (including integrating of existing kiosks in Gujarat, Kerala, Goa, Chandigarh and Karnataka). Thirty One States have completed the SCA Selection process covering 125,089 CSCs (including existing SCA of Karnataka). 100% Rollout have been completed in 10 States and more than 80% of the rollout has been completed in 7 States.

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						Governments contribution being Rs 793 crore. The balance funds would be brought in by the private sector.

58954 CSCs have been rolled out covering 27 States by December 2009.

Connectivity
Successful implementation of the CSC scheme would also depend upon availability of last mile connectivity i.e. broadband connectivity up to the village level. Considering the importance, urgency and necessity of implementation of the Last Mile Broadband Connectivity; a two phase plan has been worked out by the Department of IT, GoI | Provisioning of broadband connectivity to 100,000+ CSC | June 2010 | As on date 30,965 number of CSC locations have been provisioned with wired broadband connecti-vity.

So far 950 existing towers have been commissioned with WiMAX equipment to provide connectivity to 11,338 CSC locations.

For remote locations in North East and J&K, NIC would be providing the VSAT connectivity to 2,500 CSC locations.

BSNL would be providing EVDO / Data card connectivity to approx 3,000 locations |

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						in consultation with Department of Telecommunication and BSNL. This is as follows: **Phase –I – Broadband Wire-line connectivity:** This phase would comprise of provision of wire-line Broadband connectivity to those locations where only BSNL has rural exchanges by upgrading capacity of these exchanges. This would provide broadband connectivity to approx. 30000+ CSCs. **Phase –II – Broadband Wire-less connectivity:** This phase would comprise of provisioning of wire-less connectivity by BSNL from Blocks/Talukas. BSNL			

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						would upgrade existing towers with required wireless base stations and also establish new infrastructure where tower is not available. With this provision another 64,000+ CSCs could be provided Broadband connectivity. **Facilitating Services through CSC by enabling Implementation of State Portal, SSDG, EForm Application and Gap Infrastructure** The scheme of ensuring delivery of services through CSC by enabling the State Portal (SP), State Service Delivery Gateway (SSDG), Electronic form Application implementation and gap	• This will enable citizens to download forms and submit their applications electronically with help of **Electronic**	April 10 - March 11 Selection of Implemen-ting Agencies by States Completion of project	• Out of the approved 30 States/UTs proposals, around 17 States/UTs have floated the RFP for the selection of the Implementing Agency for the project. • Out of these 17 RFPs, 10 States/UTs have completed the bid process and are in the

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						infrastructure under NeGP has been approved with a total outlay of Rs. 400 crore. It is envisaged that SP along with SSDG will be developed and implemented so that citizens are provided with outlets where they can access the services under a single interface mechanism in the form of the Portal.	**Forms** hosted on the **State Portal (SP)** and routed through a common **services gateway (SSDG).** • Assured electronic delivery of the request from the citizen to the specified field office of the government department • The electronic acknowledge ment of successful submission of application/re quest from department to the citizen and	implement-ation in at least 10 States/UTs UAT by STQC for 10 States	process of issuing the LoI to the selected Agency. • 5 States/UTs (Tamil Nadu, Goa, Himachal Pradesh, J& K and UP) have already started the project implementation and the remaining would shortly start implementation. • Empanelment of additional two Implementing agencies for the project is in progress. • DIT parallely worked with CDAC Mumbai to develop Fulcrum, and eForm creation tool. Using this tool DIT has implemented the eForms-Proof-of-Concept; by identifying, digitalizing and implementing around 40 eForms as required for various Public Services. These forms have been hosted at **http://eforms.gov.in/fulcrum2/.** The login ID and password of each State/UTs for the usage of these 40 Forms have been shared with States. • The workshop on FULCRUM

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							query the status of his/her application/request at any point of time. • A single gateway for information and citizen services for integrated service delivery by online public services to the citizen via State Portals • A front end application mechanism through e-Forms • All public service forms in an 'e' repository		for the State IT Department, State Nodal Officer, SIO, State eMission Team and State Designated Agency has been conducted in Mumbai, Bangalore, Kolkata & Delhi. • Conducted workshop on deployment and implementation of SSDG at CDAC Bangalore.

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						e-District e-District as a concept proposes integrated and seamless delivery of citizen services by district administration through automation of workflow, backend digitization, integration and process redesign across participating departments for providing services to the citizens.	1. Implementation of e-District pilot in 14 States (37 Districts) already sanctioned.	April 2010	Implementation of e-District pilot in 16 States (41 Districts) already sanctioned
							2. Obtain financial approvals for the e-District Mission Mode Project Scheme	April 2010	National Scheme of e-District MMP for Rs 1663.06 Crore has been concurred by EFC on 23rd Sept, 2010.
							3. Implementation of (approved) e-District Scheme in 14 States where Pilots would have been completed	March 2011	e-District pilot scheme gone live fully in UP, Assam, Tamil Nadu, West Bengal, Bihar and Kerala.
						e-Bharat: To support NeGP, GoI has been carrying out dialogue with World	The project is expected to contribute to:	Discussions with respect to funding	Arising from intensive deliberations held with World Bank, a number of policy actions have been identified.

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						Bank for possible programme management and financial support (called "e-Bharat project"). This project is expected to finance a subset of NeGP activities (Mission Mode Projects (MMPs) and Program Components) as agreed between GoI and the World Bank. The Bank's support under this project is being envisaged through a succession of project financing. For GoI, this is proposed to be an IBRD loan, passed on to states and other implementing agencies as grants, subject to their adherence to agreed guidelines or "Rules of Engagement". Further, the project design being contemplated by DIT in this regard focuses on a	i. Improving government's effectiveness; ii. Empowering marginalized communities; iii. Increasing fiscal revenues; iv. Reducing public procurement costs; and v. Promoting private sector-led growth through PPPs.	mechanism and project design are currently underway. World Bank to complete appraisal of the project followed by approval and negotiation by both GoI and the Bank. Considering the progress so far, it is difficult to arrive at expected timeframe.	A Preparation Mission of the Bank took place during November 2010 during which the Bank updated itself of NeGP's implementation progress and held comprehensive deliberations with DIT on various issues related to the proposed funding.

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						"framework" approach implying that the precise subprojects and States to be financed under the project would be identified by the borrower (i.e GoI), as NeGP program unfolds. **Capacity Building** Institutional Capacity Building for all the States/UTs.. • Recruitment of SeMT for all States/UTs	Setting up of SeMT in States/UTs	Continuous activities	• Deployment of 90 professionals on wet leasing basis in 24 States/UTs has been achieved and selection process for deployment of more than 150 professionals for 29 States/UTs have been completed • 48 SeMT personnel have already joined in various States/UTs and rest are in the process of joining under NeGD recruitment plan.

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						• Orientation of political and policy level personnel's (Leadership Meet)	Create awareness about e-Governance at policy and political level	Continuous activities	e-Governance Leadership Meet for 14 States/UTs have been conducted
						• Specialized training to project level officials of all States/UTs	Training to Sr. officials, policy maker and SeMT	Continuous activities	• One week specialized training program, as "e-Governance Life Cycle" for the State of Rajasthan has been completed during22-26 November 2010 for the 30 participants. • Three days specialized training program, as "Change Management" for the State of Rajasthan.
						GIS Application • Initiation of New project	Developing spatial decision support system	September 2010	Study on establishment of GIS Centers is under progress
						• Completion of some ongoing activities.		Continuous activities	GIS project in Manipur State is on the verge of completion
						Standards for e-Governance • Development and enhancement of		By September,	• Policy on Open Standards released by Hon'ble MoCIT on

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						Standards, Guideline, Policy in identified areas of concern • Development of standards in the new areas • Publishing of standards on the website **India Portal** • Content Enhancement • ISO Certification • Promotion of Portal	Ensure Interope-rability, integration & seamless data sharing of eGov applications Release of standards/ guidelines in Interoperability, Data & Metadata, Security, Localization, Quality & other new areas that emerge Seamless search of govt. information available at the central and state levels and will facilitate Single sign-on to	2010 September 2010	Nov 12 , 2010 • Biometric standards for Face image, Finger print and Minutia released by Hon'ble MoCIT on Nov 12 , 2010. Iris image standard being put up to Apex Body on Standards for approval. • Enterprise Architecture framework under preparation • IFEG standards phase I technical standards document put up for public review • XML signatures study under progress. • Regular content enhancement is being done on the Portal • Web Ratna Awards- for websites with good content citizens services & various other aspects were evaluated and awarded under different categories. • Implementation of Guidelines

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							various govt. services and information in turn making citizen interface much simpler and easy.		for Indian Government Websites (GIGW) is in progress. Training programmes conducted. • All decisions of CIC have been migrated from legacy system and made live • Participating Government Bodies can access/use NGO Partnership System data using Web Services • Project completion date was Sept. 30, 2010. Extended till March 2011 to complete financial closure activities.
						National e-Governance Service Delivery Gateway (NSDG) NSDG is a middleware infrastructure, would act as standards based routing and a message switch de-linking the back end departments from the Front-end service access providers. This would facilitate standards based	This soft infrastructure, which is based on standards, will facilitate integration, interoperability and data sharing amongst various e-Governance	Go-Live done in Aug'08. Proposed to be launched by 1st Quarter of 2010 - 2011	• Functional testing and security testing completed for NSDG 2.0 • Integration with various applica-tions is at different stages (Ebiz, edistrict UP, TN, Trademark, MCA21, J&K eForms appln. etc) • Complete Integration kit (NSDG Policy, Registration, Reporting, alerts etc) prepared

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						interoperability and integration to existing and new e-governance applications. A pilot implementation has been successfully developed and tested. The National Gateway is implemented by CDAC and is Live since Aug'08 • Operations and Maintenance for 5 years • To be plugged into various e-Gov projects **Conformity Assessment Centre** DIT, under this project, is creating 7 IT centers (region-wise) in terms of skills, knowledge and experience with technical in the areas of Information Security,	applications. Will help to scale up e-Gov Implementation s in India and generate confidence	 On-going	for Depart-ments, Portals other Gateways • Data Centre(DC) – Data Recovery (DR) site and DR solution made operational • Launch movie preparation in progress. • 2 new conformance centres at Trivandrum and Mohali have been set up. • Usability lab at Bangalore obtained international accredit-ation through A2LA (American Association of Laboratory

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						Software Quality, IT Service Quality etc. These centers will provide Audit, Compliance and Certification Services to various e-Governance applications. The project is being executed by STQC. • Continuation of service provisioning to various e-Gov Project at Centre and State Levels • Release of Conformity Assessment framework and the Quality Assurance framework • Organizing three to four workshop on Quality e-Governance			Accreditations), USA • Biometric device certify-cation scheme for UIDAI launched and eight vendors certified • ePassport Seva project testing completed. • Project end date was Sept. 30, 2010 but has been extended for 2 months to complete tools procurement for the 2 new centres at Trivandrum and Mohali under this project. • Project ended on Nov 30, 2010

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						R&D in e-Governance To support research and development activities in various areas where R&D will bring direct benefit.	Applied R&D which would enable bringing innovative solutions which are cost-effective for the various e-Governance applications	Continuing activity	The following R&D projects are in progress:- 1. Architectural Framework for Development of e-Governance System. 2. Decision Support Automated Refactoring 3. Design and Development of Website Using Web 2.0 Tools for Public Diplomacy Division of M/o External Affairs, Govt. of India
						Open Technology Centre (OTC) GOI has initiated the setting up of an Open Technology Centre through NIC aimed at giving effective direction to the country on Open Technology in the areas of Open Source Solutions, Open Standard, Open	• OTC to form Help-Desk Mechanism for NeGP on Prioritized Open Source Stack • Support for hand holding services for using Open Source	April 2010 onwards - Continuing activity	• Training and support for adoption of Drupal PHP Portal frame work for State Portal of Tamil Nadu, two sites in Pune and few projects in Karnataka. • Open Source Awareness program for North Eastern States held at Guwahati • Preparation of tender document for Industry support for Open Source Stack. • Assisting e-Governance

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						Processes, Open Hardware specifications and Open Course-ware. The OTC will provide the requisite support to the Standardization activity for e-Governance. • To provide synergy to the overall components of Open Technology initiative that are being taken by various communities • To strengthen the support on the Open Technology • To provide the requisite support to the Standardization activity for e-Governance.	Software in eGovernance Project • Help to launch 1 e-Gov Portals / Applications which are compliant with Web Accessibility Standards • A Document and Reference for migration/porting of legacy applications to Open Technology • A Handbook on "Open Technology" • Coordination with Six Technology Standards Expert		Standards Division, NIC by providing necessary technical inputs for the Standards Formulation. • Assisting in the formulation of Device Driver Policy. • Assisting Project teams in implementing Hot standby for postgre-SQL, Performance Fine tuning of Tomcat and Postgre-SQL • Exploration of technologies such as 2D Barcode, OTP and Digital Signature and Xforms • Action plan in progress to make OTC portal available to public on internet.

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							Committees to prepare and update reports on the identified area • A Document on Guidelines to select matured libraries and tools in consultation with various stakeholders for Open Source Solutions, which are to be used in e-Governance Applications • Conformance Lab for Compliance with prioritized Open Technology Standards for		

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							e-Governance • Augmenting additional man-power of about 5 Trained NIC-Experts and about 25 Research Scientists		
						Assessment This programme is basically the Impact Assessment Studies of e-Governance projects and the e-Readiness survey of India. The impact could be in terms of quality of life, inclusion, access to information regarding benefits etc., economic in terms of either income generation or savings or even	• Impact Assessment of 20 projects across at least 2 MMPs of mature projects • Baseline Assessment of 5 projects across at least 1 MMP • Detailed Assessment of 2 MMPs in liaison with	2010-2011	• Assessment Strategy revised to undertake only Detailed and Baseline Assessment. • Eligibility criteria for Knowledge Partner, Research Institutions and Market Research Agencies finalized. • Working Group reconstituted to refine the scope and vendor selection for e-Readiness Report

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						empowerment in terms of transparency, Right to information etc. An impact assessment of these e-initiatives will aid in gaining an empirical insight into issues relating to the dynamic and organic nature of governance such as how these projects are perceived and services accessed by the citizen and their services accessed by the citizen and their effect on him as an individual as also on the politico cultural environment which sustains the project. A comprehensive list of e Government projects will be prepared to gain a bird's eye view of e Government projects in the country.	relevant line-ministry. • E-Readiness Assessment 2009-10 to be commissioned		

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						Awareness & Communication National Awareness Campaign for NeGP • To create awareness among citizens about the initiative and its objectives • To build distinctive brand of NeGP to be utilized across Departmental communications • To motivate other external stakeholders • Workshops and Seminars at MMPs /State/Divisional level	Create awareness at the national level through a campaign on various aspects/compon ents of NeGP in India. Educate the common man on the vast potential of e-Gov and encourage him to avail the benefits of the same. Collaterals reaching out to people across urban fringe and rural locations. To promote e-governance among top level political and	2010-2011	Awareness amongst citizens • RFP for empanelment of Agencies issued, bids received and are being examined • Exhibition Train – Commonwealth Express having 6 IT coaches and 5 Railway Sports Board coaches completed its journey across 24 states and 49 stations. Over 7 Lakh people visited the train • Funding @ Rs. 5000/- per DeGS and Rs.5000/- per block in that district, released to District e-Governance Societies for creating awareness amongst citizens • Participated in IITF 2010 • Work initiated for 13th National Conference on e-Governance • Build NeGP as distinct Brand

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							bureaucratic setup and other sectors like industry, academia and NGOs. Awareness at State level in departments other than IT depts., important issues with respect to faster rollout of e government projects. Divisional seminars will facilitate awareness at grass root level e.g. SDAs, NGOs, VLEs, SCAs		• NeGP declared as umbrella brand for e-Governance activities in the country; Letters issued to all MMP Mission Leaders to incorporate NeGP branding in their communications • Process initiated to declare NeGP as flagship programme • Letters issued to all SDAs and SCAs to incorporate NeGP branding in CSC banners/hoardings • Joined up campaigns with MMP Ministries initiated Motivate external Stakeholders • Funding @ Rs. 2 Lac released to 44 Central and State Universities to organize e-Governance related seminars • Organized workshops with other external organizations

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									Workshops and Seminars at MMPs /State/Divisional level • 6 Regional Consultation Workshops organised • Organised the 2nd meeting of the National Advisory Group on e-Governance
11.	**Cyber Security (incl. CERT-In, IT Act)**	Security Policy, compliance & assurance	-	**40.00 includes Rs.4.00 crore for NER**	-	Improvement in security posture of organizations and enhancement in the ability of IT systems and networks to resist cyber attacks.	Implementation of Security Best Practices – ISO 27001 in Govt. & critical sector	Ongoing. Status of compliance to be ascertained at periodic intervals. A document for securing Linux, Windows 7, Vista, SQL to be prepared.	Govt. and critical sector organizations are implementing the security best practices in accordance with ISO 27001 standard and as per the advice issued by CERT-In. Services of CERT-In empanelled. IT security auditors are being used to verify compliance.
							Implementation of cyber	Ongoing, Periodic	Second version of Crisis Management Plan has been released

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							security Crisis Management Plan (CMP) in Central Govt. Ministries/Deptt. as well as States/UT	cyber security drills to be conducted to verify security posture and compliance. Crisis Management Plan to be updated.	for countering cyber terrorism. Cyber security drills to assess preparedness of organisations to withstand cyber attacks are planned. 3rd Cyber Security mock drill was conducted on 11th December 2010. Next mock drill is scheduled for March 2011.
							Cyber Security conformity Assessment Infrastructure (Product, Process & People)	Ongoing, Empanelment activities to be conducted at periodic intervals	51 auditors were empanelled for audit of IT infrastructure from cyber security point of view. Security audits of Govt and critical sectors are being done by these auditors
							Establishment of Common Criteria (CC) product testing facility and certification scheme.	Ongoing, **Upgradation of facility to level 4 testing is planned**	Technical preparatory work is on to enhance the security product test capability to cover CC level 4

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		Security training – basic awareness as well as advanced				Trained manpower to implement techniques to secure IT infrastructure. Trained manpower to collect, analyse and process digital evidence. Pre-trained manpower will help in securing cyber space and check cyber crimes.	Specific training facilities, training modules and content development Awareness and training programmes to facilitate information sharing to deal with crisis situations.	Ongoing Ongoing	Conducted 21 trainings for System/Network Administrators, Programmers, Web application Security professionals, IT Managers, CISOs/CIOs, and IT/Information Security professionals on Computer Forensics, Virtualisation & Security challenges, Wireless Security, Adv Web Appl. Security, Secure coding in PHP, Secure coding in .NET, Crimeware and Financial Frauds, IT and Wireless Security, VoIP Security, DNS Security, Vulnerability Assessment & Penetration Testing, Info. Security Policies and Procedures for CISOs, DDoS Attacks & Mitigation, Secure Coding in C/C++, Web server security, Mail server Security, Windows Security, Stuxnet Malware threats & countermeasures, Information Security & Cloud Computing- 625 people have been trained.
		Security R&D for indigenous skills &				Development /enhancement of skills and expertise in areas of	Research and development of indigenous	Ongoing. Formulation of proposals	Working Group constituted with experts from Academic/ R&D organisations, Govt and user

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		capabilities				cyber security	cyber security solutions, proof of concepts and prototypes and skilled manpower in areas of cyber security including • Crypto Analysis & Research • Authentication • Network & System Security - Mobile • Monitoring & Forensics • Vulnerability through sponsored projects at recognized R&D organisations	with special focus on mobile security, network and system security assurance, enterprise forensics & evaluation of proposals by Working Group Periodic review of individual	organisations provided advisory support for implementation of R&D programme. R&D proposals were formulated in the areas of (i) packet marking schemes for for trace back network security attacks, (ii) reactive roaming scheme for honeypots, (iii) enterprise level security metrics, (iv) steganalysis covering digital multimedia objects, (v) side channel attack resistant programmable block ciphers, (vi) trust models for cloud computing, (vii) cryptanalysis, (viii) SCADA security, (ix) Secure routing in P2P networks and (x) computer forensic lab and training facility and Nine projects were initiated.. Twenty nine on-going projects were reviewed by the respective Project

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		Security incident – early warning and response (CERT-In)				Enhancing the security of communications and information infrastructure in the country	Rapid response, resolution and recovery Security incident prediction, prevention and protection Security assurance	projects Ongoing. Continuous upgradation of CERT-In facilities and capabilities to counter growing cyber security threats. Facility for collection of samples and analysis for anti-virus signatures.	Review and Steering Committee (PRSG) of the on-going projects and follow up actions have been taken. A new dynamic web site of CERT-In has been hosted. Facilities and capabilities were enhanced by adding Application and signature based threat detection systems. A web application firewall has been added to enhance the security of the network for protection from layer 7 attacks The proposal for setting up a disaster recovery centre for CERT-in has been approved and is planned to be set up by March 2011. Security Incident Response-Around 5362 security incidents handled.

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								Realtime Malware tracking and analysis with special focus on virus/bots.

Real time response to cyber security incidents | 12153 Indian website defacements tracked. Incident Response and Advice for prevention provided to affected organisations.

1785 open proxy servers in India were tracked and actions were taken to mitigate the same.

Around 1635212 Bot infected systems and 24 Command & Control servers were tracked in India. |
| | | | | | | | | Alerts, Advisories and vulnerability Notes | 22 Security alert/ incident notes issued.

47 Security Advisories issued.

165 Security Vulnerability notes issued.

Security Bulletins covering various cyber security issues, intrusion trends and defence mechanisms are being published every month. |

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								Cyber Security Mock drills	Participated in international incident handling drill in September 2010
								Cyber Forensics – comprehensive manual of procedures for cyber crime investigation to be prepared.	One manual was released in September 2010
		Cyber laws for supporting E-Commerce and E-Governance activities				A legal framework, which will instill confidence of the users and investors in the area of Information Technology in the country, will be in place.	Legal Framework that can effectively support growth of E-Commerce and E-Governance in the country.	Ongoing, Rules pertaining to additional sections to be formulated	Rules in respect of 8 key sections of Information Technology (Amendment) Act, 2008 already notified. Rules pertaining to sections 6A, 43A, 70A, 70B and 79 will be shortly released for public comments. These rules are planned to be notified by March 2011.
							Operation and maintenance of	Ongoing, Awareness	The Chairperson, CAT, participated in 18 Awareness programme

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							Cyber Appellate Tribunal	programmes for adjudicating officers to be organized. National, Regional and State level seminars proposed.	organized by various organisations and delivered lectures Cyber laws and adjudication issues in India, cyber security for judicial officers etc, Organised a Seminar on "Enforcement of Cyber Law" in May 2010 in which participants were Adjudicating Officers of States & UTs, Hon'ble Judges In-charge of E-courts of High Courts and State police personnel, Hon'ble judges of the Supreme Court etc. • CAT handled a number of cases and 7 cases have been disposed off.
12.	**Promotion of Electronics / IT Hardware Mfg.**	Promotion of Hardware Manufacturing in the country.	-	2.50	-	Supporting the setting up of Semiconductor Fabrication and other micro and nano technology manufacture industries in the country under SIPS.	This would encourage investment in electronics/IT hardware manufacturing sector	March 2011	Special Incentive Package Scheme (SIPS) was available upto 31.3.2010. In all, 26 applications have been received. Out of the 26 applications, 22 pertain to Solar Photovoltaic (SPV), 2 to LCD Panel / Glass and 2 to Semiconductors/ ATMP. Eighteen (18) of these 26

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									applications were received prior to 31.12.2009 and the remaining 8 between 31.12.2009 and 31.3.2010.
									All applications have undergone Technical Evaluation. The applicants were given time to report Financial Closure (FC) till 31.12.2010. Eleven (11) SPV applicants have reported achieving Financial Closure of more than the threshold level of Rs.1000 crore by 31.12.2010.
						Conducting Studies and preparation of Position Papers related to promotion of Electronics/IT Hardware manufacturing.			Following two studies are underway: (i) Study entitled "Electronics Components, Hardware Market and Manufacturing Output Study including related Assemblies and Value Chain in India (ELCOMOS)" by Electronic Industries Association of India (ELCINA) at an outlay of Rs.30 lakhs (DIT's contribution: Rs.24 lakhs) and
									(ii) Study on semiconductor and embedded design service Industry

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									by India Semiconductor Association (ISA) at an outlay of Rs.24.00 lakhs (DIT's contribution: Rs.16.50 lakhs).
13.	**Manpower Development (including Skill Development in IT)**	**E-learning**	-	113.00 includes Rs.25.00 crore for NER	-	Design and Development of Service Oriented Architecture based Standards Compliant e-Learning Framework with Personalized Learning Features - to develop an intelligent e-learning system catering to personalized learning complying with standards, using technologies like service oriented architecture (SOA), web mining and Rich internet applications (RIA).	• E-learning standard compliant tool with support to Personalized learning • An integrated conversion tool for creating SCORM compliant content • Integrated video streaming capability	Nov., 2011	The literature survey has been done on the available technologies and their implementation for personalization. Also activity related to Exploration of RIA framework and prototype demonstration of sample application has been completed
						Design and Development of a Framework for Adaptive Instruction	Creation of an environment that presents learning	Dec., 2011	Work is progressing as per schedule and so far Report on existing work in Adaptive Instruction has been prepared. Regarding Design of FAI,

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						(FAI) – to deliver instruction in personalized manner, to set up FAI server, to provide Indian language support.	material depending on the learner model and preferences		work is progressing
						Real Time Video Compression and Decompression techniques - to improve latency and performance of video compression and decompression techniques based on standard H.264 for lower bandwidths (below 128 kbps) and to provide better quality of video and audio at lower bandwidths and lesser latency for e-Learning.	• To improve codec standard H.264 or to develop video compression and decompressio n (codec) standard for better quality of video such as 128 kbps.	Dec., 2011	Work related to Literature Survey has been completed. Work is going on in respect of Experimental set up and exploration of existing H264 frameworks. Organized a workshop on beagleboards
						Fresh project proposals for E-Learning in the area like development of authoring tools, Video Compression/ decompression			Working Group recommended 3 new project proposals in the area of E-Learning in its meeting held in Oct. 2010. These proposals are under processing for approval of competent authority

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		Human Resource Development in the country in the area of Information Security.				techniques, developing content independent of Platform and environment, Personalized Learning and content management system etc. will be invited from various academic institutions, R&D labs etc. • Launching/ continuation of Information Security Curriculum at B.Tech/ M.Tech/ Ph.D levels and train System Administrators; • Establishment of Information Security labs at RCs and PIs; • Training faculty of Participating Institutes; • Train Central and State	Generate qualified IT security professionals for Industry/ Govt. Human Resource Development and awareness in the area of Information Security. Secured environment for	March 2011	*Academic Activities:* • The Resource Centres(RCs - 06)/Participating Institutes(PIs - 33) have launched academic courses on Information Security from doctoral level to short-term level; So far more than 30,000 students have been trained/ undergoing training in various long-term/ short-term courses at these institutes. • Four (04) Faculty training programmes for PIs organized through TIFR & IISc. • Information Security Labs set up at all the RCs and PIs.

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						Government Officers; and • Awareness Programmes in the area of Information Security.	BPO, Commerce and governance		• Schemes for Travel Fellowship for attending conferences, paper presentation, short-term courses, workshops, tutorials etc. for students and faculty of RCs/PIs, and Revised Ph.D Scholarship/Fellowship for students of RCs/PIs evolved and launched. *Government Officer Training: implemented through six implementing agencies viz. NIC, CERT-In, STQC, CDAC DOEACC Society, ERNET India.* • Organized training of seventy eight (78) Master Trainers so far through IISc. Bangalore at ISTM, Delhi, IISc., Bangalore & CMU, USA. • Organized an Advanced level training programme for a batch of 20 participants at CMU, USA through IISc. Bangalore. • Various Training Programmes for Government Officers are being conducted by six (6) Implementing Agencies.

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									• A modular courseware on Information Security (10 Modules) for short duration training programmes has been designed/developed through CDAC, Hyderabad. The courseware has also been integrated with e-learning tool (e-Sikshak) and hosted through website by C-DAC Hyderabad. *Information Security Awareness: implemented through CDAC Hyderabad.* • So far 205 workshops have been organized across the country covering about 7040 Teachers/ Parents/ CSC/ NGOs, etc., and about 25,500 school children/ college students. • During these workshops, around 16,000 Awareness Kits (with promotional material and Hand Books) were distributed. • 25 posters on various topics of Information Security Awareness were designed and around 62,000 posters were distributed to target users. Further, around

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									30,000 stickers were distributed in Mumbai Internet Safety Week 2010 in association with Mumbai Cyber Police, NASSCOM, and DSCI. • 4 cartoon videos developed for children. • A dedicated website for information security awareness (http://www.infosecawareness.in) has been developed. • Course material like guidelines for XP, Linux, wireless configurations developed. • Security e-Books developed (Security Guidebook, Security Tool Kit, Children Hand Book, Guidebook for Teachers and Parents) and made available on the web site - 1800 downloads so far. • Hindi version of Security Awareness Handbook developed. *Certification Scheme for Information Systems Security Professionals: implemented*

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									through DOEACC Society. • A national level certification scheme for Information Systems Security professionals evolved with DOEACC Gorakhpur as nodal centre. The scheme consists of three levels. • Level 1 (Certified System Security Analyst) launched in July 2010 with registration of 16 Regular Candidates at Gorakhpur Centre (05 candidates) and Kolkata Centre (11 candidates); and 191 Direct Candidates. • Final exam conducted for first batch of Level 1 in December 2010 wherein 15 Regular Candidates and 65 Direct Candidates appeared. Practical exam scheduled in January, 2011. • The detailed syllabus and Practical Assignments for Level 2 and broad syllabus for level 3 finalized. • Course material development for Level 2 has been completed.

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	Scheme of Manpower Development for the Software Export Industry					• Creation of course curriculum, Contents and Question Bank • Generation of quality faculty and mentors • Upgradation of skills of graduates to make them employable • Augmentation of infrastructure facilities for ICT	Human Resource Development in the area of Information Technology for software export industry Generation of Mentors/quality Faculty Enhancement of quality of ICT education in	March 2011	• Advertisement released for launch of Level 2 (Certified System Security Professionals) and 2nd batch for Level 1 w.e.f. January 2011. *Miscellaneous* • Two Appraisal Workshops covering all the RCs/PIs and implementing agencies conducted so far at IIT Madras and IIT Guwahati. • Various projects under the scheme are being implemented at C-DAC-Noida, IIIT-Allahabad, IIITM-Gwalior, IIIT-Bangalore, IIIT-Hyderabad, State Government of Tamil Nadu, and UP Technical University. CDAC at Hyderabad & Pune have completed project successfully. • Necessary training infrastructure like setting up of lab etc. has been created at IIIT-Allahabad, IIITM-Gwalior, CDAC-Pune,

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						training to enhance the intake capacity

• Expansion of state-of-the art facility for advanced (industry related) IT training programmes

• National On-line Test System for Graduate Engineers in Information Technology | Engg. Colleges

Virtualization of Technical Education in IT

National On-line Test System for Graduate Engineers in Information Technology | | IIIT-Bangalore and CDAC-Hyderabad.

• Various ICT training programme are being conducted in the area of Information Security & its Application, Data warehousing & mining, Data Digitisation, Advertising & Brand management using IT, GIS Technology in Financial system, E-commerce system, Expert systems and application, E-operations and Software development & Project management, Embedded System, E-Learning, Data Structure and Algorithms, Database Management System, Computer Network, Communication Skills and Personality Development, Management Skills, C++, Java, J2EE, ASP.NET and C#, Digital Signal Processing System Design Management skills, IT Outsourcing, e-Contents development, Data Structure, Faculty Updation Programme in |

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									various areas. So far, more than 9398 students/ faculty have been trained/ undergoing training. • The development of 'Online Examination Software' has been completed. The testing of this software is in progress. • Summer school courses were conducted on e-Healthcare, Experts Systems Applications & Global Banking and Finance in e-World. International seminar on Empowering visually impaired through ICT and a workshop on Content development in Advertisement and Brand Management through IT Tools were conducted. Training has been conducted for teachers/research scholars/professionals in the areas of GIS, Expert Systems, e-Healthcare, Global Banking, e-Content development & delivery and Advertisement & Brand Management. Also conducted training for farmers/Knowledge

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									Workers in the area of Tele Agriculture, Tele Education, Tele Medicine, Land & Water Resource advisories, e-Governance services & Weather advisories. • Necessary infrastructure is being set up for 14 nodal centers 12 in UP and 2 in Uttarakhand. Trial run of the online lectures were disseminated ands tested using the infrastructure. Presently NPTEL course contents are being delivered in virtual mode. In addition the following projects have been initiated: • 'Setting up of ICT Academy Kerala (ICTACK)' with the primary objective to train faculties in Engineering, Arts, Science, Polytechnic and ITI's and support roll out of mass based HR programme for

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	Human Resource Development in the North-Eastern Region					• Regional Institutes for e-Learning and Information Technology (RIELIT) at Kohima (Nagaland) and Agartala (Tripura) • New DOEACC Centres at Shillong (Meghalaya), Gangtok (Sikkim)	Create skilled manpower in the area of Computer Science and Information Technology and related disciplines for making available industry ready professionals and also cater	March 2011 (RIELIT Kohima) March 2012 (RIELIT Tripura) Dec 2012 (DOEACC Shillong) July 2013	graduates. Action has been initiated for implementing the project by the State Government of Kerala. • 'IT Enabled Soft Skill Enhancement Training Programme to Improve Employability of Engineering and Management Students' by Anna Universities of Coimbatore and Chennai. So far 5165 & 5180 students trained by Anna University Coimbatore & Anna University Chennai respectively. • RIELIT, Kohima is conducting BCA, DOEACC O/A level, CHM 'O' level, CCC and other short term courses. So far, a total of 2297 candidates have been trained at RIELIT, Kohima and at Extension Centre, Chuchuyimlang, Nagaland. The training activities of RIELIT, Kohima have been shifted to the permanent campus at Mereima. The remaining finishing works

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						and Itanagar (Arunachal Pradesh)	to the needs of the respective state and the region as a whole.	(DOEACC Gangtok) January 2014 (DOEACC Itanagar)	at Academic Building, Girls Hostel, Staff Quarters, etc., are in progress. • RIELIT, Agartala, Tripura is conducting DOEACC 'O' & 'A' level, CHM 'O' & 'A' level and ITES-BPO from temporary accommodation provided by the State Government of Tripura since December, 2008. So far, a total of **694** candidates have been trained at RIELIT, Agartala. Land for setting up of the permanent campus has been taken over from the State Government and fencing of the site is completed. Project Management Consultant (PMC) has been selected for constructing the permanent campus at Mouja Radha Krishore Nagar, Agartala. • DOEACC Centre, Shillong has started short-term training courses from rented premises covering 6000 sq. ft. since December 2009 in Meghalaya

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									State Housing & Financing Co-operative Society (MSHFCS), Nongrim Hills, Shillong. So far, 187 Nos of students are enrolled for various training courses.
									• Action has been initiated for setting up of DOEACC Centre, Gangtok. A four storied building with approx. 10,000 sq. ft. built-up space has been taken on rent at Sichey, Indra Byepass Road, Gangtok. Renovation work is completed. Training Program would commence from Jan 2011.
									• Action has been initiated for setting up of DOEACC Centre; Itanagar by hiring built up space on rent at Naharlagun/ Itanagar, Arunachal Pradesh. Renovation work is partially completed. Training would commence from Jan 2011
		Digital Library Initiatives – Digitization /				On-going Projects Digitize:	Strengthen Country's identity by digitally preserving the	March 2011	• Digitized 16.5 Million pages • Connectivity provided to nodal

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		preservation and web enabling of Copyright free data available in physical form				10-15 Million pages Providing bandwidth connectivity to IISc., IIIT, Hyderabad and C-DAC, Noida Hosting the DLI web site for accessing the digitized data **New projects** Digitize around 20 Million pages	national heritage and intellectual output Strengthen Country's identity by digitally preserving the national heritage and intellectual output.	March 2011	centers • Data hosted on DLI web site • Equipments installed for setting up of a repository of digitized data and data of 10 Million pages has been transferred on this repository • 1 New project has been initiated for digitization of rare copyright free documents
14.	**Facilitation of Setting up of Integrated township**	Information Technology Investment Regions (ITIR) scheme has been notified in the Gazette of India under which each State in India can set up an integrated	-	1.00	-	IT cities of world class quality of life in different States/UTs.		2009-2014	Proposals have been received from 4 States. Comments have been requested from concerned Ministries/ Departments on the proposals.

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		township with world class infrastructure for facilitating growth of IT/BPO and Sunrise Industries.							
15.	**Headquarter**	Secretariat & Building. Foreign Trade Exhibitions. Others - Seminars/ Workshops.	27.30 3.10 0.80 0.50	35.00	-	To meet running expenditure of the Secretariat and Plan Schemes; CST re-imbursement of STPI units; To organize exhibitions abroad for promotion of Trade ; and To organize seminars/ workshops for development of electronics in IT.	To run office smoothly. Export promotion Trade promotion Development of electronics in IT		On continual basis
16.	**National Informatics Centre (NIC)**	Provide wide range of E-Governance infrastructure and services in the Country at various levels right from Central Government,	-	700.00 Includes Rs.72.00 crore for NER	-	**Cyber Security** Network and application security audit, Co-relation of security events, Expansion of help desk facility for secure coding and source code scanning.	Enhanced security on NICNET.	March, 2011	Auditing of networks and applications are continuous activities, Security Monitoring Centre (for correlation) and Anti-virus helpdesk and Application are active. Tender bids for Source Code analysis Tool are under evaluation UTM are operational in 7 bhavans

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		State Governments to district administrations in their initiatives towards providing good Governance to the people.				**Certifying Authority**			and few more are in the process of procurement.
						Setting up of new Registration Authorities (RA)	DSC Subscribers will be serviced by new RA office in selected states	March, 2011	Completed
						Provision for additional Redundancy for continuity & minimum downtime.	Procurement of H/W & S/W for additional system redundancy	March, 2011	Revised CA/Sw is being installed for implementation of interoper–ability Guidelines issued by CCA. It is in progress
						Computerisation of Land Records Integration model of Land Record, Registration and Cadastral maps	Enhanced Usability, optimization of application	December, 2010	Integrated model of Land Record system has been implemented in the states of Chattisgarh, Haryana, Tripura and Orissa. For Training Agency is finalized.
							Software will become useable	March, 2011	SRS prepared.

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						Customization of Bhunaksha software for the Northern States	as per user requirement and environment.		
						Videoconferencing infrastructure development Web based HD VC system	Availability of HD service over Internet/Intranet	Procurement September, 2010	Proposal is under Process.
						Augmentation of VC infrastructure	Availability of better VC facility.	Procurement December, 2010	Completed
						Multipoint VC infrastructure	Availability of better quality VC service.	Procurement January, 2011	Completed
						India Image Augmentation of Comprehensive WWW Service	Enhanced Web services.	Procurement October, 2010	Virtualized Infrastructure for web hosting to working as per plan
						Website Design and	Facilitate development of web sites using	Procurement December, 2010	Supported a no. of Ministries, Deptts in design, development & Review of their Portal/Websites.

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						Development Infrastructure	state-of the-art technology.		Conducted a no. of Training Programmes across the country on Guidelines for Indian Government Websites.
						Remote Sensing & GIS GIS ICT Infrastructure, Deployable GIS data Meta Data Raster as well as Vector GIS Services over NICNET for E-governance & planning	Customized GIS data products and services over NICNET for E-governance & Planning.	Procurement March, 2011	Framework Server Infrastructure upgraded with high end servers and advance versions of GIS software at NIC Data Centre (Completed) Conversion of Data from restricted Everest Datum Format to open WGS84 format. (Completed) 550 district ground verified village boundary as well village point data. Long distance OFC mapping completed

						Utility Mapping Project
						
						Basemap updation of Delhi City, Field Data
						  Photogrammetry data
						  Digital Basemap data
							Basemap updation for roads of North Delhi	Data collection/ updation March ,2011	Completed

						Data Centre Data Centre at Pune	Availability of increased Data Centre facility for e-	Procurement March, 2011	Commissioned

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							governance projects.		
						Data Centre at Delhi & Bhubneshwar	Establishment will be initiated.	Procurement March, 2011	Tender is finalized LOI to be issued. At Bhubneshwar, site suitability testing is in progress.
						Procurement of Remote management devices.	Facilitate remote management of servers hosted at DC by respective departments. Hence increasing convenience and efficiency.	Procurement October, 2010	Remote Management devices has bee procured
						High Speed Terrestrial Circuits 150 Districts will have 34 Mbps connectivity.	Increase of connectivity capacity and Bandwidth	Procurement March, 2011	Completed
						300 Districts will have	Better monitoring and minimization of	Procurement March, 2011	Completed

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						STM1 channaelised connectivity to extend last connectivity	downtime for lastmiles and quality of services.		
						NICNET International Gateway project Gateway Bandwidth will be upgraded to 4 Gbps and 2 additional gateways will be installed at Mumbai and Chennai.	Enhanced and efficient availability of Internet Services	Procurement March, 2011	Commissioned
17.	**National Knowledge Network (NKN)**	The objective of the National Knowledge Network is to bring together all the stakeholders in Science, Technology, Higher Education, Research & Development, and	–	100.00 Includes Rs.10.00 crore for NER **Budget status of NKN** Allocation available as after 1st supple-mentary	–	NKN will interconnect all institutions engaged in research, higher education and scientific development in the country, over a period of time. The output of the project will be a high capacity countrywide Infrastructure at education & research Institute level, which	The NKN will facilitate the knowledge sharing, collaborative research, countrywide classrooms (CWCR) etc. and help the country to evolve as Knowledge Society. This	–	**Implementation Status of NKN** i. A core Backbone consisting of 17 Points of Presence (PoPs) have been established. ii. 89 no. of institutes have been connected to NKN and 15 virtual classrooms were setup. iii. 26 More Core links have been provided in addition to 37 already operational. This makes total core links to 63. iv. Links have been provided to 30

Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
		Governance with speeds of the order of gigabits per second coupled with extremely low latencies; through PoPs in the respective institutions/ organisation.		demands for grants is Rs 1112.00 crore. A sum of Rs.1362.00 crore has been proposed in RE 2010-11 that includes Rs.136.20 crore for NER.		will be available 24x7 to support education and research application, and other application as envisaged by these institution which require very high bandwidth. **Final Phase* : Revised Target for 2009-10* (for Jan to March 2010)** Complete Garuda Migration Connect 33 institutions more by March 2010 Virtual Classrooms in all the IIT's Gateway /Indo EU link establishment To move from Initial Phase to Final Phase. **Target for 2010-11** CORE BACKBONE : 34 Locations Approximately 78, 10Gbps links	will also contribute in socio-economic activities of the country indirectly.		more institutes apart from 89 already connected institutes. Router installation and configuration is being carried out. v. The MoU has been signed between (NIC & NICSI) & the service providers namely BSNL, Railtel, PGCIL & MTNL. vi. The List of next set of 55 institutes to be connected to NKN is finalized. Routers have been delivered to 53 locations. vii. TEIN3 links is integrated with NKN. iii. Initial set of IP numbers from APNIC has been obtained, and IP allocation from the APNIC has been done. ix. MoU has been signed between GLORIAD (The Global ring network for advanced applications development), the National Knowledge Network (NKN) and Tata Institute of Fundamental Research (TIFR). x. Network Sanitation Lab is being setup at IIT Mumbai, for sanitization of network

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Sr. No	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2010-11 (Rs. in crore)			Quantifiable Deliverables/Physical Outputs	Projected Outcomes	Processes/ Timelines	Status as on 31.12.2010
			Non-Plan Budget	Plan Budget	Compl EBR (IEBR)				
						End nodes 500- 550 locations. Enhancement of Infrastructure at various PoPs. Create a Test-bed Infrastructure for research support. Starting Data Centre Setup with few services. Model Projects. International R&D Connectivity & Internet Gateways.			equipments to be deployed in NKN. xi. The five Model projects recommended by Model Project Evaluation Committee (MPEC) in its first meeting were approved by HLC in its 9th meeting held on 6th August 2010. xii. Domain Naming System has been installed for the NKN. Data Centre / NOC space has been acquired the development work is in progress.