

TAKING THE POWER OF DIGITAL TO THE NEXT LEVEL



Digital India
Power To Empower



सत्यमेव जयते

Ministry of Communications
and Information Technology
Government of India



Digital India

is an ambitious programme of the Government of India with a vision to transform India into a digitally empowered society. The focus areas are: creation of a countrywide digital infrastructure as a utility for every citizen, ensuring governance and services on demand and digital empowerment of citizens.

The Digital India Programme is a mission to prepare India for a knowledge future by making technology central to enabling change. The Digital India programme rests on nine pillars: Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance – Reforming Government through Technology, e-Kranti – Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes.

From enabling storage of legacy documents in digital format to providing a unified platform for all scholarships provided by the Government of India, from facilitating online registration and obtaining appointments in hospitals to propagating widespread use of digital signatures, from setting up of a National Centre for Flexible Electronics to creating an Electronic Development Fund as a Fund of Funds, from creating the fiber optics backbone infrastructure across the country to moving ahead with the Next-Generation Network that heralds the convergence of voice, data and multi-media services ... Digital India is the most comprehensive programme under implementation, de-Signed to harness the immense potential of Digital to propel India forward.



“

Technology transforms people's lives. It empowers and connects. From mitigating poverty to simplifying processes, ending corruption to providing better services, vitality of technology is everywhere. It is an important instrument of human progress.

”

Narendra Modi

Prime Minister



Contents

Communication Infrastructure and Services

■ BharatNet	2
■ BSNL Next Generation Network	3
■ BSNL Wi-Fi Services	4

Products

■ Digital Locker	6
■ National Scholarships Portal	7
■ e-Hospital/ORS	8
■ e-Sign	9
■ Digitize India Platform (DIP)	10

Portals / Apps

■ Digital India Portal, Mobile App & Book	12
■ MyGov Mobile App	13
■ Swachh Bharat Mission App	14

Institutions and Policies

■ National Centre for Flexible Electronics	16
■ Centre of Excellence for Internet of Things (IoT)	17
■ e-Governance Policy Initiatives Under Digital India	18
■ Electronics Development Fund (EDP) Policy	19

Communication Infrastructure and Services



Broadband backbone across India

BharatNet

BharatNet serves as the infrastructure backbone of Digital India, taking Internet and telecommunication services to every nook and corner of the country. It is speedily working towards the massive goal of connecting all the villages across India through broadband.

BharatNet is the world's largest rural broadband connectivity project using optical fibre, connecting 2.5 lakh Gram Panchayats, with a minimum of 100 Mbps bandwidth for each. This network will be supported by a High Capacity Network Management System and Network Operation Centre. It will facilitate the rollout of e-Governance, e-Health, e-Education, e-Banking, Internet and various other services to rural India.



Touching every sphere, every life

- e-Governance Services: Land records, Birth/Death certificates, Aadhaar-based services, NREGA etc.
- e-Healthcare: Online medical consultation, medical records, medicine supply, pan-India exchange of patient information etc.
- e-Education: Delivery of quality education in schools in villages.
- Public Internet Access: Availability of Internet services to villages, delivery of Internet-based services by Common Service Centers (CSCs)
- e-Commerce: Rural banking through online transactions and ATMs; online purchases and online transactions for utilities like railway bookings, electricity bill payments, etc.; online selling of rural goods etc.
- Employment Generation: Large scale employment generation through operation and maintenance activities; BPO services and rural entrepreneurship.
- Knowledge Dissemination: Sharing of agricultural practices, productivity techniques; support to small enterprises and vocational learning; single-point government-to-citizen interaction for central/state sponsored schemes; grievance redressal.

For more information, log on to:
<http://www.bbnl.nic.in>





Voice, data and multi-media on one landline

BSNL NGN Next Generation Network

The Next Generation Network (NGN) is a packet-based network to provide telecommunication services to make use of multiple types of traffic such as voice, data and multimedia. It is a convergence of service provider networks that includes voice telephony, data networks (Internet) and wireless networks.

BSNL has chalked out a massive plan to use the cutting-edge technology of NGN for its NGN C-5 project. The objective is to migrate existing voice and data customers to NGN platform to provide basic telephone and supplementary services using internet protocol (IP). It has

planned to offer a whole package of services: voice (VOIP), data, closed user group, multimedia video conferencing and fixed mobile convergence (FMC) where users can switch between landline and mobile telephony alternatively without breaking the call.

The NGN equipment planned under this project will be integrated with different BSNL voice exchanges, broadband network and existing computerised billing platforms. BSNL's aim is to cover 4 million customers under NGN in Phase-1.



The NGN advantages

- Customers can make video calls in addition to voice calls.
- A group of customers can enjoy pan-India based Closed User Group between fixed line and mobiles.
- Multimedia video conferencing from NGN will help small and medium entrepreneurs.
- Business will benefit from uninterrupted calls (voice and video).

Wi-Fi hotspots, affordable connectivity on the go

BSNL Wi-Fi Services

Under the mission of Digital India, it has been planned to roll out Wi-Fi in 2,500 cities and towns to provide affordable seamless connectivity. Towards this goal, BSNL has commenced large-scale deployment of Wi-Fi hotspots throughout the country. Such hotspots will enable people to access anywhere-anytime, high-speed broadband services.

2,500 hotspots within a year

Having launched 53 Wi-Fi Hotspots in 24 locations in 11 cities this year, BSNL plans to set up 2,500 hotspots, all during the year 2015-16. BSNL will be deploying 2G/3G mobile data Wi-Fi offload solution on pan-India basis which would enable a much better experience to mobile users for accessing internet through their mobile devices.

Wi-Fi at major tourist places across India

BSNL has set up Wi-Fi Hotspots at important tourist places like the Ganga Ghats at Varanasi, Taj Mahal at Agra and Hussain Sagar Lake at Hyderabad, as well as in three cities – Bengaluru, Vijayawada and Bilaspur. It has started the work for providing Wi-Fi services at ASI monuments at Sarnath, Fatehpur Sikri, Konark Temple (Puri), Shore Temple (Mahabalipuram), Brihadeshwar Temple (Thanjavur), Hampi (Karnataka), Khajuraho (MP), Jagannath Temple (Puri) and 14 other tourist destinations.



Products



Digital Locker to store documents and certificates

Digital Locker aims at eliminating the use of physical documents and at enabling sharing of verified government issued or self-uploaded electronic documents across agencies. Digital Locker provides a dedicated personal storage space in the cloud to citizens, linked to citizens' Aadhaar numbers. It will enable various organisations registered on Digital Locker to push certificates of citizens directly in their Digital Locker in electronic format.

Digital Locker

Citizens can also upload and securely store the scanned copies of legacy documents in Digital Locker. These legacy documents can be electronically signed using e-Sign facility. A citizen can share these electronic certificates online with various departments and agencies registered on Digital Locker while applying for the services provided by them. Thus, Digital Locker brings the citizens, issuers and requestors on one platform.



Key Benefits of Digital Locker

Digital Locker will provide secure access to documents issued by various agencies. It uses authenticity services provided by Aadhaar. Digital Locker will minimise the use of physical documents by use of the electronic documents. It is easy to validate the authenticity of these documents as they will be issued directly by the registered issuers and thereby provide information from the source of truth. Digital Locker will reduce the administrative overhead of departments and agencies due to reduced or zero paper work. It will also make it easy for the residents to receive services by saving time and effort as their documents will now be available anytime, anywhere and can be shared electronically.

One system, many benefits

- Storage and sharing of government certified documents possible.
- Will enable paper-free governance.
- Anytime, anywhere access to documents.
- Enables e-signing of documents.
- Dedicated personal space of 1 GB.
- Ensures privacy and authorised access only.



For more information, log on to:
<https://digitallocker.gov.in>





All Government scholarships on a single website

The National Scholarships Portal is a one-stop solution for implementing the entire scholarship process – applying for different scholarships, application receipt, processing, sanction and disbursement by different central ministries, state governments and other agencies. The portal is an end-to-end solution, right from registration of application by the student to the transfer of money to the bank accounts of students.

This initiative aims at providing a Simplified, Mission-oriented, Accountable, Responsive and Transparent (SMART) System for faster and effective applications, quick disposal of scholarships, and the delivery of funds directly into the beneficiaries' accounts.

National Scholarships Portal



One portal, many solutions

The National Scholarships Portal has been developed under an initiative by PMO to remove impediments for expeditious disbursement of scholarships.

- Ensures timely disbursement of scholarships to students.
- Provides a common portal for various scholarship schemes in the centre and the states/UTs.
- Creates a transparent database of scholars.
- Avoids duplication and leakages in processing.
- Provides synergy among different scholarship schemes and norms.
- Facilitates Direct Benefit Transfer of scholarships.

One platform, many applications

- Common application form for all students with options for Ministry-specific schemes.
- Individual Ministries can administer the schemes.
- One-time registration of students for quick and easy verification.
- Common Management Information System (MIS) to track and monitor the process of selection by individual Ministries.
- A common interface to avoid multiple scholarships to the same student.
- Uploading of supporting documents by students for easy verification and transparency.
- Access to the list of scholarships awardees.
- SMS alerts at various stages of verification.
- Comprehensive monitoring at every stage of scholarships distribution, from student registration to the delivery of funds.



For more information, log on to:
<http://www.scholarships.gov.in>



Online appointment with doctors at specialised government hospitals

e-Hospital/ORS

For a common man, seeking diagnosis and treatment means waiting for hours in long queues and a lot of running around. e-Hospital/ORS is a unique initiative that addresses this problem. The patient can fix an appointment with the concerned doctor from his home, can get to know about the availability of critical requirements such as blood, and can check his/her report online.

e-Hospital/ORS will usher in a whole new way of getting healthcare services.

- Single portal provides choice of hospitals to patients.
- Aadhaar-based online registration and appointment.
- Flexibility to provide appointments to new patients who don't have Aadhaar.
- Online payment of registration fee.
- Online payment of diagnostic test being made available.
- Online availability of diagnostic reports.
- Facility to check availability of blood through online mechanism.

Where is e-Hospital/ORS service available?

To begin with, e-Hospital/ORS service is available in the following hospitals.

- All India Institute of Medical Sciences, New Delhi.
- Ram Manohar Lohia Hospital, New Delhi.
- Sports Injury Centre, New Delhi.
- National Institute of Mental Health & Neuro Sciences, Bengaluru.

The plan is to extend this service across the country, as widely as possible.

Benefits of e-Hospital/ORS

- A system for crowd management.
- Elimination of long queues.
- Secure patient records available at central location.
- Easy maintenance of health records.



For more information, log on to:
<https://ors.gov.in>



Online electronic signature, saves time and trouble

e-Sign

e-Sign is an online electronic signature service to facilitate an Aadhaar holder to digitally sign a document. It can be integrated with service delivery applications. The facility of online electronic signature is enabled through the Aadhaar e-KYC service.

How e-Sign works

For creating electronic signatures, the signatory is required to obtain a Digital Signature Certificate (DSC) from a Certifying Authority (CA) licensed by the Controller of Certifying Authorities (CCA) under the Information Technology (IT) Act, 2000. Before a CA issues a DSC, the identity and address of the signatory is verified. The private key used for creating the electronic signature is stored in a hardware cryptographic token which is secured with a password or pin.

The current method of in-person physical presence, paper document based identity and address verification and issuance of hardware cryptographic tokens does not scale to a billion people. For offering fully paperless citizen services, mass adoption of digital signature is necessary. The simple Aadhaar-enabled online service allows everyone to have the ability to digitally sign electronic documents.

Who can use e-Sign?

The e-Sign service can be used by individuals, businesses and Government departments for electronically signing a document based on a one-time password (OTP) or Biometric (finger-print/iris image) authentication through Aadhaar e-KYC service.

Why e-Sign?

- Easy verification, saving time and trouble
- Legally valid signature, no questions asked
- Flexible and easy to implement
- Utmost privacy
- Secure online service

For more information, log on to:

<http://www.cca.gov.in/cca/?q=e-Sign.html>



Help Digitize India, and earn

Digitize India is a programme of the Government of India to digitize physical records and reduce piles of papers in record rooms and offices. It enables organisations to free their warehousing real estate and to keep their records for a longer time and in safer environment.

A special Digitize India Platform has been developed for this. It leverages an innovative algorithm and technology to enable digitization of any kind of record at a reasonable price. The platform uses crowd sourcing. It provides income opportunities by facilitating people to work from home or any other location.

The algorithm requires every word/phrase to be sent to two disconnected persons randomly selected. Each one digitizes the word and submits. If the digitization by both persons matches, they get rewarded as per the number of characters digitized. If the digitization does not match, neither gets rewarded. Based on words successfully digitized, users keep accumulating rewards and whenever they wish, the amount can be credited to their bank accounts directly.

Anyone can participate in the Digitize India programme, be it housewives or students or part-time workers or the retired.

Joining the Digitize India Platform

It is a simple three-step process to start earning rewards:

Step-1 : Visit digitizeindia.gov.in and register as a user.

Step-2 : Log on and start digitizing.

Step-3 : Digitize India Platform will facilitate checking the accuracy, calculating the rewards and make payment to the user/participant.



Digitize India Platform (DIP)



Submitting records for digitization

Any organisation can submit their records for digitization to CSC SPV. The records should preferably be in a scanned image format. Organisations can submit physical records as well, but will have to pay for their scanning.

The CSC SPV creates the template of the pages being digitized. This template is sent for the approval of the organisation submitting the records for digitization. The data/records are thereafter processed for digitization.



For more information, log on to:
<http://digitizeindia.gov.in>



Portals / Apps



Connecting to the Digital India Programme

Digital India Portal is the dedicated portal for Digital India programme. The portal has been created to provide informational services to various stakeholders on the various aspects of the Digital India programme. The portal provides knowledge on the programme management structure and approach and methodology for implementation of Digital India programme.

A unique system available on the portal is Digital India Monitoring System, which facilitates all nodal departments at the level of the Centre as well all States/UTs to share the progress status of Digital India projects pertaining to their domain and geography. This plays an important role and helps in monitoring the progress of Digital India at both the national and state levels.

The centralised portal of Digital India is a responsive and multi-lingual system and connects all stakeholders and citizens. It will provide updated details on Digital India Programme including its vision, areas of operation and progress of various projects. The portal will contain details of programme management, media gallery, discussions forum, quiz, social media and such other information. Digital India Portal has been integrated with NIC SMS gateway, to communicate to registered users through services like SMS.

Digital India Portal and Mobile App

Mobile App for those on the move

Digital India Mobile App is a mobile-based application developed to provide easy access to information on Digital India Programme through smart phones and other mobile devices. Through Mobile App, the latest status, discussion forums and message platform, everything can be accessed. Any latest update on Digital India portal will be known to registered users through pop-ups.

The Mobile App is made available in Android, iOS and Windows versions.

The Portal and Mobile App provide a vital link between the people and the Digital India initiative.

Digital India Book

A commemorative book released on the occasion of the launch of the Digital India Programme, the 'Digital India Book' captures the purpose and perspective behind making India a digitally empowered knowledge economy and takes readers through the Nine Pillars of the Digital India Programme that form this massive initiative.



For more information, log on to:
<http://digitalindia.gov.in>





**my
GOV**
मेरी सरकार

**GREAT GOVERNANCE WITH
YOUR PARTNERSHIP**

नरेंद्र मोदी

Share your ideas with the Government, even when on the move

**MyGov
Mobile App**

The MyGov Mobile App is a mobile version of the citizen engagement platform – MyGov. It expands MyGov's reach and empowers citizens to share opinions and inspired suggestions, even when they are on the move. The MyGov App has been created in view of the steady increase in Internet access through mobile devices, especially among the youth, and the need to further facilitate and simplify access to MyGov.

Features of MyGov App

- Various crowd-sourced initiatives that encompass job creation, skill development, Green India Movement, Swachh Bharat Abhiyan, Girl Child Education and such other issues.
- Multiple theme-based discussions on MyGov for people to share their thoughts and ideas.
- Any idea shared by a contributor can also be discussed on these discussion forums, allowing constructive feedback and interaction.
- Offers several avenues to contribute to on-ground activities.
- Citizens can volunteer for various tasks and submit their entries.
- Tasks can be reviewed by other members and experts.
- Approved tasks can be shared by those who complete the task and by other members.
- Every approved task earns credit points for completing the task.



An instrument for a Clean India

The 'Swachh Bharat' Campaign has charged the people with a new zeal to clean up their neighborhood, their city, town and village. Initiated by the Hon'ble Prime Minister Shri Narendra Modi, it has been one of the most successful drives in the recent times.

Swachh Bharat Mobile App has been developed to generate greater awareness about the campaign among the people and connect them with various cleanliness programmes.

The App has inbuilt features that take the mobile-user into various activities such as 'Swachhata Pledge', video clips and images taken during different cleanliness programmes, and inspiring messages on cleanliness. The Mobile App facilitates citizens to post photos of unclean spots in their locality and mark it on a map, organise a cleanliness drive and invite friends and neighbours to join in. It allows one to share stories and photos with friends.

Swachh Bharat Mission App

The Swachh Bharat Mobile App will not only popularise Swachh Bharat Campaign, but also result in greater outreach with more citizens participating while on the move. With the Mobile App, the Swachh Bharat Campaign will get both broad-based and localised, and reach out to people across India. The application will empower citizens, recognizing them as important and vigilant stakeholders in developing a Clean India.



A low-angle, upward-looking photograph of several modern skyscrapers against a clear blue sky. The buildings feature various architectural styles, including glass facades, curved structures, and prominent external piping. A central orange banner with a pointed right edge contains the text "Institutions & Policies" in white. In the bottom right corner, there is a small white box with the number "15".

Institutions & Policies



Getting the cutting edge through research

National Centre for Flexible Electronics

Flexible electronics is an emerging area of electronics which is based on the monolithic integration of electronic components on amorphous and often flexible substrates, typically resulting in products that are large in size with length scales ranging from a few centimeters as in sensors, to a few decimeters as in displays and lighting, to several meters as in organic solar cell based panels.

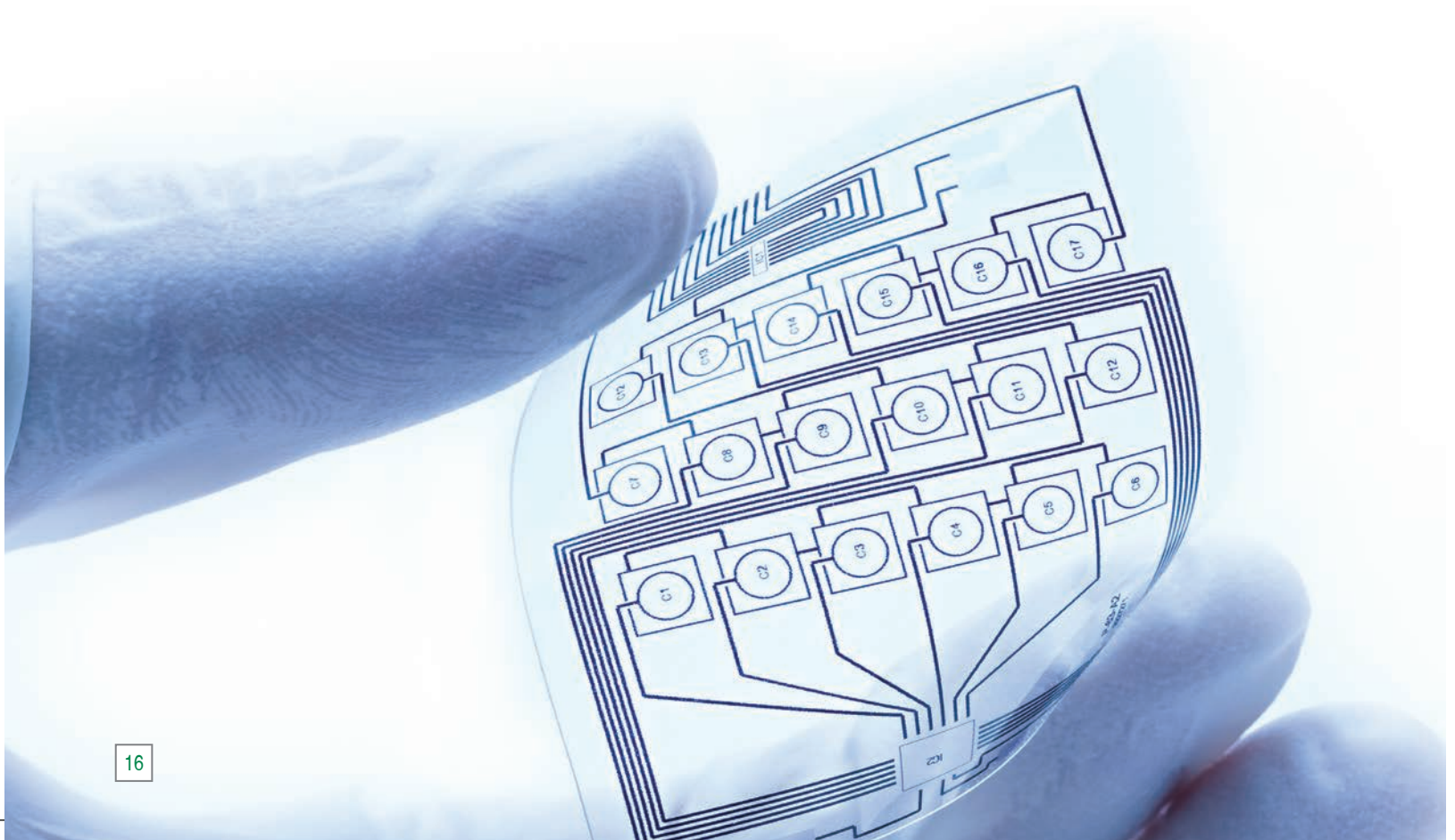
The technology with a lot of promise

The electronics emerging from this technology can be fabricated on substrates, which are plastics, paper, textiles or metal foils. The products of flexible electronics are much more affordable and if required, even disposable. They find applications in several sectors. Some of the examples of the possible applications are: distributed energy production through organic solar cells on windows and roofs, disposable sensors or lab-on-a-chip for health monitoring, security packaging of medicines to prevent circulation of

fake drugs, wearable and lightweight electronics, airport baggage handling, labelling of books in libraries or answer scripts in a large scale examination, flexible displays and lighting. The examples span to a large number of industrial sectors.

To expand the knowledge and research in the field of Flexible Electronics and put its application for wider products, it has been envisaged to set up National Centre of Excellence at Kanpur, with financial support from Department of Electronics & Information Technology. The Centre will enable India to stimulate research in this emerging area and explore the immense possibilities.

For more information, log on to:
<http://deity.gov.in/esdm>



Taking IoT to new levels of excellence

The Internet of Things (IoT) is the emerging technological advancement in the sphere of IT/ITeS which is expected to swamp the digital world. The Centre of Excellence for IoT seeks to promote an IoT ecosystem, striving to take India to the leadership position in the field. The Centre is a combined initiative of Department of Electronics & Information Technology, National Association of Software (NASSCOM) and Education & Research Network (ERNET).

Breaking new grounds, opening new skies

The Centre of Excellence for IoT will stimulate research and development in the field of IoT, open new horizon for jobs and promote enterprise. The objectives of IoT are:

- Students and Job Seekers: Internships on IoT projects; access to industry experts/courses/ showcase of talent.
- Small and Medium Enterprises: Use of open technology stack; access to industry experts/consultants showcasing the prototype/project to companies; access to students to work on projects.

Centre of Excellence for Internet of Things (IoT)

- Engineering Service providers: On-demand proficiency centre for skill upgradation; access to industry-ready talent, technical experts and consultants.
- Industry: Trained manpower; innovative ideas; prototypes for new products.

What are the advantages of IoT?

There are many advantages of incorporating IoT into day-to-day lives, businesses, society, healthcare, home security and many other areas.

- In healthcare, IoT can facilitate to implant chips into a patient's body, allowing the healthcare professionals to monitor the vital signs of their ailments.
- IoT can also function as a tool that can save people money within their households. It enables individuals to communicate with their home appliances and operate them through a mobile app in an energy-efficient way.
- For businesses, IoT can be useful in many areas including asset tracking, inventory control, shipping, location, security, individual tracking, energy conservation and many other spheres.



For more information, log on to:
<http://deity.gov.in/content/internet-things>

Policies that are changing the picture

e-Governance Policy Initiatives Under Digital India



The Department of Electronics and Information Technology has taken several policy initiatives in the e-Governance domain that are crucial for achieving the vision and objectives of the Digital India programme. These policies provide necessary support to all ministries and departments in leveraging the emerging technologies, making use of newer business models and revamping of existing projects.

Many policies, one pursuit

- **Policy on Adoption of Open Source Software for Government of India:** It will encourage the formal adoption and use of Open Source Software (OSS) in Government organisations. The compliance to this policy will ensure that strategic control of e-Governance assets remains with the Government and business continuity for the projects in future from technical perspective.
- **Framework for Adoption of Open Source Software in e-Governance Systems:** It suggests recommendations and procedures for promoting, managing and enhancing the adoption of OSS in the e-Governance Systems in India.
- **Policy on Open Application Programming Interfaces (APIs) for Government of India:** It sets out the Government's approach on the use of 'Open APIs' to promote software interoperability for all e-Governance applications and systems, and provides access to data and services for promoting participation of all stakeholders.

- **E-mail Policy of Government of India:** It lays down the guidelines on use of e-mail services by the Government departments and organizations. The aim is to ensure secure access and usage of Government of India e-mail services by its users.

- **Policy on Use of IT Resources of Government of India:** It provides guidelines to ensure proper access to and usage of Government's IT resources and prevent their misuse by the users.

- **Policy on Collaborative Application Development by Opening the Source Code of Government Applications:** It intends to increase the pace of e-Governance application development and rapid implementation by adopting an open-source based development model.

- **Application Development and Re-engineering Guidelines for Cloud-ready Applications:** It aims to address one of the major concerns in the e-Governance domain, namely lack of process reengineering and leveraging of the latest emerging technology.



Advancing Technology Start-up Ecosystems in India

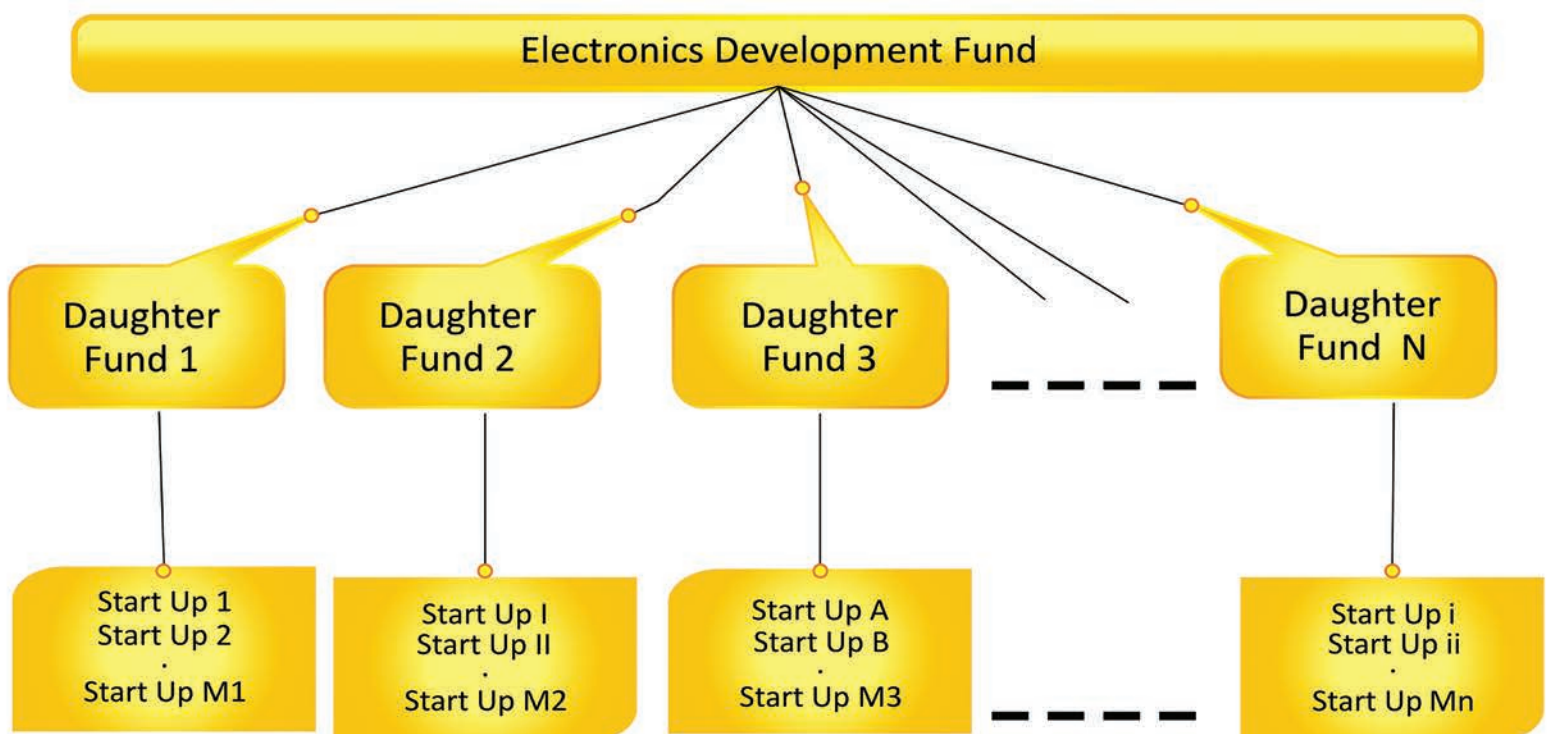
Electronics Development Fund (EDF) Policy

A major characteristic of the electronics sector is the importance of R&D and innovation due to high velocity of technology change. Intellectual Property is the most critical differentiator and a determinant of success for an electronics company. The Digital India programme envisions developing Electronics System De-Sign and Manufacturing (ESDM) with the objective of net zero import by 2020. Setting up of Electronics Development Fund (EDF) is a step in this direction.

Financing a vision

The objective of the EDF policy is to support Daughter Funds including Early Stage Angel Funds and Venture Funds in the area of Electronics, Nano-electronics and IT. The supported Daughter Funds will promote innovation, R&D and product development within the country in the aforementioned fields. They will also support acquisition of foreign companies and technologies for products imported in India in large volumes. The core focus of the Daughter Funds would be to develop domestic de-Sign capabilities. The Daughter Funds supported will create a resource pool of IP within the country in the specified fields.

The policy provides a framework where the decision to support R&D is based on market conditions and through industry professionals well-versed with industry requirements.



For more information, log on to:
<http://deity.gov.in/esdm/edf>



सत्यमेव जयते

Ministry of Communications and Information Technology
Government of India

Department of Electronics
and Information Technology

Electronics Niketan,
6 CGO Complex, Lodhi Road,
New Delhi 110003

<http://www.deity.gov.in/>

Department of
Telecommunications

Sanchar Bhawan, 20 Ashoka Road,
New Delhi 110001

<http://www.dot.gov.in/>

Department of Posts

Dak Bhawan, Sansad Marg,
New Delhi 110001

<http://www.indiapost.gov.in/>



National e-Governance Division

4th Floor, Electronics Niketan, 6 CGO Complex, Lodhi Road, New Delhi 110003

Contact: ceo@negp.gov.in