



**WORKSHOP**

**ON**

**“HIGH IMPACT CHANGE**

**IN**

**THE WAKE OF**

**‘E’ GOVERNANCE”**

**17<sup>TH</sup> MARCH, 2017**

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## **INTRODUCTION**

Founded in the year 1983, Association of Municipalities and Development Authorities (AMDA) has successfully completed its 34 years. The organisation has grown from its foundation to be a reliable partner to ULBs offering unmatched value to our members in fields of Capacity Building & Training, Planning Consultation, Research and studies, Information Exchange and its Dissemination and Advocacy. Since its inception, the organization has grown manifold based on trust and confidence of its stakeholders and it continue to inspire and challenge ULBs to find innovative ways to strengthen services to address community needs and lead the way towards better alignment of social strategies. We have registered strong growth in our membership over years and now we have 79 proud members. AMDA membership value strengthens our operating position and allow AMDA to Serve Municipal Corporation, Municipalities and Development Authorities in better ways.

AMDA has been performing the work of Institutional Development and Capacity Building of Municipal Corporations and Development Authorities across India for more than three decades. It acts as a focal point for exchange of ideas and information on Urban Planning and Development. AMDA considered sharing its association with the members and stakeholders in the changed scenario with emphasis on the 'e' governance and the rising demand and intricacies involved in the present day work paradigm. AMDA feels proud to find its members and the participants in the workshop with an endeavour to impart and inculcate among all the aspects of the social and finance transactions in the digital environment.

# **E-GOVERNANCE AND SOCIO-ECONOMIC IMPACT**

## **AN INTRODUCTION**

The fastest growing component in the modern world is Information Communication Technology (ICT) which is playing the key role in the information and interaction which attracts a change in the functions and meeting requirements of the public at large. The Indian Government has set to promote its dealings and services electronically. In this regard, the Indian Government's major policy measures have been defined in terms of computer density, connectivity, content including cyber laws. E-Government can advance the agenda on governance and economic reform, transparency, anti-corruption, empowerment and poverty reduction. It is in the offing that the country has to see whether e-governance can eradicate poverty, reduce inequality and satisfy basic human needs in a developing country like India. We may look at this factor as a future phenomenon. The social environment of each of the projects in the study is made up of the local factors that comprise the intended beneficiaries, their social make up and condition, both before and after the project was implemented, as well as any influence thereon has the relationships within the community. The largely quoted scenario in India is the impact on rural community and their involvement in relation of e governance i.e. Information Communication Technologies (ICTs) on rural population comprising of farmers and small traders including the patriwala or the road side squatter. In case it is achieved the negotiating power of middlemen, which currently based on their monopoly will go and trade information, will become more conducive towards the farmers who can use Information Communication

Technologies (ICTs) to obtain the same information which was being enjoyed by the middlemen. The Information Communication Technologies (ICTs)

impacts in rural projects will also encourage gender relations, advancing women's equality, and increasing incomes, which may directly affect reducing poverty. Given the number of initiative recently announced by the Central and State Governments in India, it transpires that "e-government" will be important in India and by many measures; the transactive power in India will be more transparent to help in reducing corrupt practices and the gap in rich and poor. The topic of e Governance globally covers in papers, books, workshops and conferences. It focuses specifically on municipal e Governance and looks at needs of municipalities and their citizens towards improving city governance and the use of ICT to deliver public services. The essential source is the experience in implementing e Governance modules in over 200 cities municipal e Governance projects have been implemented in cities and towns across India.

Most Municipalities have procured computers and connected themselves on the internet, several have created websites with information on the municipality, and some have even gone so far as to provide transactional capability such as registering grievances, collection of Local taxes and property tax etc. In spite of these various efforts the impact of e governance has been limited to a few pockets, we have not seen wide spread use of ICT to obtain leaps in municipal operational efficiency and service delivery. It is the need to take e Governance and to list out key essential components requires for e Governance implementation. It also goes into the outcomes from such a well designed system and comes closer in the event some case studies of a successful municipal e Governance are to be undertaken.

Purchase of computers, modernization and creation of a city website thereby using office productivity tools operating through M S Office in the municipality truly embark on a robust platform that can systematically improve administration and delivery of citizen services to be friendlier. An integrated approach to Municipal e-Governance drives towards automating department level operations. The focus is typically on specific functions, such as Property tax collection, Revenue Dept., Financial Accounting, Accounting Dept. across Municipal organization with access throughout India

### **IMPLEMENTATION STRATEGIES -**

There is enormous diversity in the composition and structure of local self-governments, even within a state. The large corporations operate with large

organization structures with complex workflows (Chennai Corporation has 31 fully functional departments, & each department with its own set of processes); (Mumbai Corporation relies on Octroi as a source of revenue) and citizen delivery services from multiple para-statal agencies like Water Boards responsible for Supply of Water. On the other end of the spectrum, there are the smaller local bodies at the Town Panchayat level where the local self-government is a small, cohesive unit responsible for almost all the civic services. The functional requirements and the capacity of the end-users to absorb an e-governance solution are typically much lower than that of the large ULBs. It is therefore very important to adopt an implementation strategy that factors these intra-state variations.

One of the most important thing in e-Governance is not the 'e' but the Governance part is an oft repeated cliché. The nature and scale of the capacity building constraints depend on the nature of the ULB. It is apparent that the complexity is heavily dependent on the size and the scope of operations of the local self-government body.

The essence of e governance can be divided into four major components:

1. Training: Training of end-users on the software and where relevant, new principles like double entry accounting and processes involving budgeting etc.

2. Implementation: Post training, the implementation hand-holding component needs to focus on providing technical both software and processes as well as organizational support like data entry.

3. Capacity Building: In many cases, there is a need to augment capacity to ensure better implementation. The reasons are primarily that of insufficient manpower (*a serious issue in the smaller ULBs where there have been caps on recruitment for several years*) and a skill set mismatch as most accountants in the smaller ULBs are not familiar with double-entry accounting and to cover that gap, fresh recruitment of qualified accountants is a necessity.

4. Policy Frameworks: This is typically the most complex part involving legal framework changes (e.g. amendments to the Act to switch to accrual basis of budgeting from the existing cash based budgeting).

# **E-GOVERNMENT AND E-GOVERNANCE**

E-government (Electronic Government) refers to the delivery of national or local government information and services via the Internet or other digital means to citizens or businesses or other governmental agencies. E-government is a one-stop Internet gateway to major government services. E-government facilitates provision of relevant government information and public deliveries in electronic form to the citizens in a timely manner. Better service delivery to citizens; empowerment of the people through access to information without the physical or official approach to the bureaucracy; improved productivity and cost savings in doing business with suppliers and customers of government; and participation in public policy decision-making is the genesis. While talking about the other i.e. E-Governance it refers to how managers and supervisors utilize IT and Internet to execute their functions of supervising, planning, organizing, coordinating, and staffing effectively.

1. E-government is a generic term for web-based services from agencies of Local Self Govt. (Municipalities, Municipal Corporations and Development Authorities etc.) State and Union Governments. In e-government, the government uses information technology particularly the Internet to support government operations, engage citizens, and provide government services in public delivery system. The interaction may be in the form of obtaining information, filings, or making payments and a host of other activities via the World Wide Web. Also the "E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits could be less corruption, increased transparency, greater convenience, revenue growth, and cost reductions.

## **Foundation**

E-Government is a situation in which administrative, legislative and judicial agencies (both Central and State as well as local governments) digitize



their internal and external operations and utilize networked systems efficiently to realize better quality in the provision of public services. It can also be stated that the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the Internet and new media. Precisely, E-government is the use of information and communication technologies (ICTs) to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens. E-government might involve delivering services via the Internet, telephone, community centres (self-service or facilitation centres), wireless devices or other communications systems. E-government enables citizens to interact and receive services from the central, state or local governments twenty four hours a day, seven days a week.

It is also a part of development as most of the governments departments have already taken and initiating services online. However, for the true potential of e-government to be realized, government needs to restructure and transform its long entrenched business processes. E-government involves the use of ICTs to support government operations and provide government services and goes even further and aims to fundamentally transform the production processes in which public services are generated and delivered, thereby transforming the entire range of relationships of public bodies with citizens, businesses and other governments.

2. E-Governance refers to the using information and communication technologies (ICTs) at various levels of the government and the Local bodies for the purpose of enhancing governance. Governance implies the processes and institutions, both formal and informal, that guide and restrain the collective activities of a group. Government that acts with sovereignty and authority thereby creates formal obligations and deliveries for the cause of the people. Governance need not necessarily be conducted exclusively by governments. Private firms, associations of firms, non-governmental organizations (NGOs), and associations of NGOs all engage in it. Often in association with governmental bodies, they create governance; sometimes without governmental authority. Clearly, this suggests that e-governance need not be limited to the any sector. It implies managing and administering policies and procedures in the private sector as well aiming at improving information and service delivery, encouraging citizen participation in the decision-making process and making



government more accountable, transparent and effective. E-governance involves new styles of leadership, deciding policy and ways of accessing education. Ways of listening to grievances of citizens and redressed by delivering information and services. E-governance is generally considered as a wider concept than e-government, since it can bring about a change in the way citizens relate to governments and to each other.

### **E-Governance and E-Government**

It is understood that that e-government constitutes package for its various services for governance. e-governance is a broader concept and includes the use of ICT by government and civil society to promote greater participation of citizens in the governance of political institutions with the, use of the Internet by politicians and political parties to elicit views from their constituencies in an efficient manner, or the publicizing of views by civil society organizations which remain in conflict with the ruling parties. Based on this classification, e-governance concerns internally-focused utilization of information and internet technologies to manage organizational resources.

### **PROVIDING SERVICE**

As described above e-Governance means utilizing IT to guide and restrain collective activities of groups that manage formally and informally processes and institutions in private as well as public enterprises. The emphasis here is on IT aiding managers to accomplish their functions effectively. What are the functions of managers? In literature, these have been defined in different ways – the most prominent ones are supervising, planning, organizing, controlling, and staffing. We can classify managerial roles into three categories: interpersonal, informational, and decisional. Information systems that help in accomplishing these functions and roles include MIS, DSS, and ESS. DSS and ESS are sometimes collectively called Management Support Systems. IT can reduce internal management costs. An employer employs managers and employees to perform work on his/her behalf. These employees need constant supervision and management by the employer; otherwise they will pursue their own interests rather than those of the employer. A service provider though engaged in accordance with the rules on the subject but in the absence of proper monitoring the service provider start pursuing their own interests rather than those of the employer. This is an important aspect to be kept in mind while engaging the service provider.

With the growth in the size and scope of work and projects, organizational costs or coordination costs rises because the organization has to hire more and more managers to supervise, monitor, and coordinate activities of employees. IT, by reducing the costs of acquiring and analyzing information, permits organizations to reduce costs because it becomes easier for managers to oversee a greater number of employees. IT enables organizations to increase revenues while shrinking the number of middle management and clerical workers.

## DIGITAL INDIA

Digital Technologies which include Cloud Computing and Mobile Applications have emerged as catalysts for rapid economic growth and citizen empowerment across the globe. Digital technologies are being increasingly used by us in everyday lives from retail stores to government offices. They help us to connect with each other and also to share information on issues and concerns faced by us. In some cases they also enable resolution of those issues in near real time. The objective of the Digital India Group is to come out with innovative ideas and practical solutions to realise Hon'ble Prime Minister Narendra Modi's vision of a digital India. Prime Minister Modi envisions transforming our nation and creating opportunities for all citizens by harnessing digital technologies. His vision is to empower every citizen with access to digital services, knowledge and information. This Group will come up with policies and best practices from around the world to make this vision of a digital India a reality.

E-governance initiatives in India took a broader dimension in the mid 1990s for wider sectorial applications with emphasis on citizen-centric services. The major ICT initiatives of the Government included, inter alia, some major projects such as railway computerization, land record computerization, etc. which focused mainly on the development of information systems. Later on, many states started ambitious individual e-governance projects aimed at providing electronic services to citizens.

Though these e-governance projects were citizen-centric, they could make less than the desired impact due to their limited features. The isolated and less interactive systems revealed major gaps that were thwarting the successful adoption of e-governance along the entire spectrum of governance. They clearly pointed towards the need for a more comprehensive planning and implementation for the infrastructure required to be put in place, interoperability issues to be addressed, etc. to establish a more connected government.

### **e-Kranti : National e-Governance Plan**

The national level e-Governance programme called National e-Governance Plan was initiated in 2006. There were 31 Mission Mode Projects under National e-Governance Plan covering a wide range of domains, viz. agriculture, land records, health, education, passports, police, courts, municipalities, commercial taxes, treasuries etc. 24 Mission Mode Projects have been implemented and started delivering either full or partial range of envisaged services. Considering the shortcomings in National e-Governance Plan that included lack of integration amongst Government applications and databases, low degree of

government process reengineering, scope for leveraging emerging technologies like mobile, cloud...etc, Government of India has approved the e-Kranti programme recently with the vision of “Transforming e-Governance for Transforming Governance”.

All new and on-going e Governance projects as well as the existing projects, which are being revamped, should now follow the key principles of e-Kranti namely ‘Transformation and not Translation’, ‘Integrated Services and not Individual Services’, ‘Government Process Reengineering (GPR) to be mandatory in every MMP’, ‘ICT Infrastructure on Demand’, ‘Cloud by Default’, ‘Mobile First’, ‘Fast Tracking Approvals’, ‘Mandating Standards and Protocols’, ‘Language Localization’, ‘National GIS (Geo-Spatial Information System)’, ‘Security and Electronic Data Preservation’.

The portfolio of Mission Mode Projects has increased from 31 to 44 MMPs. Many new social sector projects namely Women and Child Development, Social Benefits, Financial Inclusion, Urban Governance, e Bhasha...etc have been added as new MMPs under e-Kranti.

## **VISION AREAS OF DIGITAL INDIA**

The Digital India programme is centred on three key vision areas:

### **1. Digital Infrastructure as a Utility to Every Citizen**

- Availability of high speed internet as a core utility for delivery of services to citizens
- Cradle to grave digital identity that is unique, lifelong, online and authenticable to every citizen
- Mobile phone & bank account enabling citizen participation in digital & financial space
- Easy access to a Common Service Centre
- Shareable private space on a public cloud
- Safe and secure cyber-space

A well connected nation is a prerequisite to a well served nation. Once the remotest of the Indian villagers are digitally connected through broadband and high speed internet, then delivery of electronic government services to every citizen, targeted social benefits, and financial inclusion can be achieved in reality. One of the key areas on which the vision of Digital India is centred is “**digital infrastructure as a utility to every citizen**”.

A key component under this vision is high speed internet as a core utility to facilitate online delivery of various services. It is planned to set up enabling infrastructure for digital identity, financial inclusion and ensure easy availability of common services centres. It is also proposed to provide citizens with “digital lockers” which would be sharable private spaces on a public cloud, and where documents issued by Government departments and agencies could be stored for easy online access. It is also planned to ensure that the cyberspace is made safe and secure.

## **2. Governance & Services on Demand**

- Seamlessly integrated services across departments or jurisdictions
- Availability of services in real time from online & mobile platforms
- All citizen entitlements to be portable and available on the cloud
- Digitally transformed services for improving ease of doing business
- Making financial transactions electronic & cashless
- Leveraging Geospatial Information Systems (GIS) for decision support systems & development

Over the years, a large number of initiatives have been undertaken by various State Governments and Central Ministries to usher in an era of e-governance. Sustained efforts have been made at multiple levels to improve the delivery of public services and simplify the process of accessing them. E-governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency.

The National e-Governance Plan (NeGP) was approved in 2006 to take a holistic view of e-governance initiatives across the country, integrating them into a collective vision. Around this idea, a massive countrywide infrastructure reaching down to the remotest of villages is being developed, and large-scale digitization of records is taking place to enable easy and reliable access over the internet. The ultimate objective was to make all government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realise the basic needs of the common man".

Six elements are undoubtedly crucial for ensuring that governance and services are made available on demand to all citizens and other stakeholders in the country.



### **3. Digital Empowerment of Citizens**

- Universal digital literacy
- Universally accessible digital resources
- Availability of digital resources / services in Indian languages
- Collaborative digital platforms for participative governance
- Citizens not required to physically submit Govt. documents / certificates

Digital connectivity is a great leveller. Cutting across demographic and socio-economic segments, Indians are increasingly connecting and communicating with each other through mobile phones and computers riding on digital networks. The Digital India programme itself promises to transform India into a digitally empowered society by focusing on digital literacy, digital resources, and collaborative digital platforms. This also places emphasis on universal digital literacy and availability of digital resources/services in Indian languages.

#### **Approach and Methodology for Digital India Programme are:**

1. Ministries / Departments / States would fully leverage the Common and Support ICT Infrastructure established by GoI. DeitY would also evolve/ lay down standards and policy guidelines, provide technical and handholding support, undertake capacity building, R&D, etc.
2. The existing/ ongoing e-Governance initiatives would be suitably revamped to align them with the principles of Digital India. Scope enhancement, Process Reengineering, use of integrated & interoperable systems and deployment of emerging technologies like cloud & mobile would be undertaken to enhance the delivery of Government services to citizens.
3. States would be given flexibility to identify for inclusion additional state-specific projects, which are relevant for their socio-economic needs.
4. e-Governance would be promoted through a centralised initiative to the extent necessary, to ensure citizen centric service orientation, interoperability of various e-Governance applications and optimal utilisation of ICT infrastructure/ resources, while adopting a decentralised implementation model.
5. Successes would be identified and their replication promoted proactively with the required productization and customisation wherever needed.
6. Public Private Partnerships would be preferred wherever feasible to implement e-Governance projects with adequate management and strategic control.



7. Adoption of Unique ID would be promoted to facilitate identification, authentication and delivery of benefits.
8. Restructuring of NIC would be undertaken to strengthen the IT support to all government departments at Centre and State levels.
9. The positions of Chief Information Officers (CIO) would be created in at least 10 key Ministries so that various e-Governance projects could be designed, developed and implemented faster. CIO positions will be at Additional Secretary/Joint Secretary level with over-riding powers on IT in the respective Ministry.

### **Programme Management Structure for Digital India Programme**

The Programme management structure for the Digital India programme as endorsed by the Union Cabinet is as follow:

1. For effective management of the Digital India programme, the programme management structure would consists of a Monitoring Committee on Digital India headed by the Prime Minister, a Digital India Advisory Group chaired by the Minister of Communications and IT and an Apex Committee chaired by the Cabinet Secretary. The structure has the needed secretarial/ monitoring/ technical support and appropriate decentralization of power and responsibility to ensure effective execution of the various projects/ components by the implementing departments/ teams.
2. Key components of the Programme Management structure would be as follows:
  - a. **Cabinet Committee on Economic Affairs (CCEA)** for programme level policy decisions.
  - b. **A Monitoring Committee on Digital India under the Chairpersonship of Prime Minister** which will be constituted with representation drawn from relevant Ministries/ Departments to provide leadership, prescribe deliverables and milestones, and monitor periodically the implementation of the Digital India Programme.
  - c. **A Digital India Advisory Group headed by the Minister of Communications and IT** to solicit views of external stakeholders and to provide inputs to the Monitoring Committee on Digital India, advise the Government on policy issues and strategic interventions necessary for accelerating the implementation of the Digital India Programme across

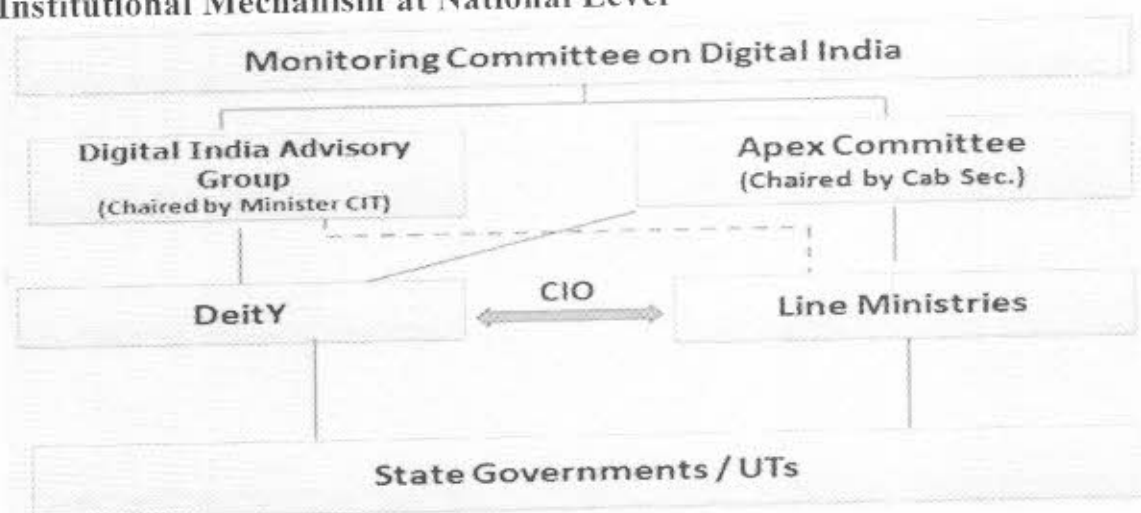
Central and State Government Ministries/Departments. The composition of the Advisory Group would include representation from the Planning Commission and 8 to 9 representatives from States/UTs and other Line Ministries/Departments on a rotational basis.

- d. An **Apex Committee** headed by the Cabinet Secretary would be overseeing the programme and providing policy and strategic directions for its implementation and resolving inter-ministerial issues. In addition it would harmonize and integrate diverse initiatives and aspects related to integration of services, end to end process re-engineering and service levels of MMPs and other initiatives under the Digital India Programme, wherever required.
- e. **Expenditure Finance Committee (EFC)/Committee on Non Plan Expenditure (CNE)** to financially appraise/ approve projects as per existing delegation of financial powers. The EFC/ CNE headed by Secretary Expenditure would also be recommending to the CCEA the manner in which MMPs/ e Governance initiatives are to be implemented, as well as the financial terms of participation for States. A representative of the Planning Commission would also be included in both the EFC and CNE.
- f. A **Council of Mission Leaders on Digital India** headed by Secretary, DeitY would be established as a platform to share the best practices in various existing and new e Gov initiatives under Digital India and also to sensitize various government departments about ICT projects of DeitY. While the inter-departmental, integration and interoperable issues of integrated projects / e Governance initiatives would be resolved by the Apex Committee on Digital India headed by Cabinet Secretary, the technical issues of integrated projects would be resolved by the Council of Mission Leaders.
- g. Further, considering the scope of the Digital India Programme and the need to look at issues such as overall technology architecture, framework, standards, security policy, funding strategy, service delivery mechanism, sharing of common infrastructure etc. at a programme level, it is proposed that the technical appraisal of all Digital India projects be done by DeitY, prior to a project being placed before the EFC/ CNE. This appraisal would cover issues relating to inclusion of adoption of Standards, utilization of Cloud and mobile platforms, consideration of security aspects, etc. The Secretary, DeitY or his representative may also be

included as a standing special invitee to all EFC/CNE meetings, which are appraising/approving MMPs. It may be mentioned that the DeitY has already set up a Programme Management Unit, namely National e Governance Division (NeGD) to provide support to departments in conceptualizing, developing, appraising, implementing and monitoring respective MMPs / e Governance Initiatives.

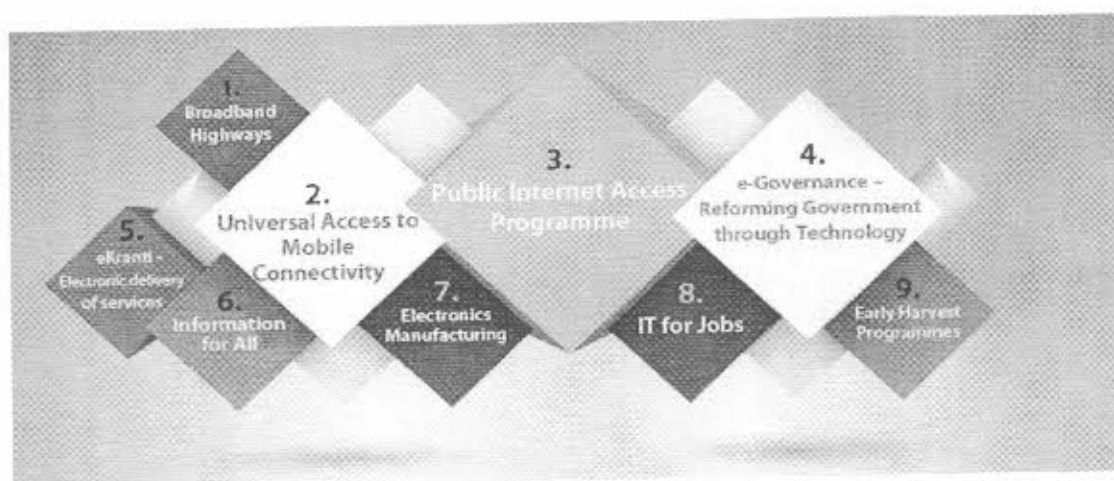
- h. Institutional mechanism of Digital India at State level would be headed by **State Committee on Digital India** by the Chief Minister. **State/UT Apex Committees on Digital India** headed by Chief Secretaries would be constituted at State/UT level to allocate required resources, set priority amongst projects and resolve inter-departmental issues at State level.
3. For effective monitoring of Digital India, usage of Project Management Information System would be mandatory in each new and existing Mission Mode Projects to capture the real or near real time details about the progress of the project. This tool should be proficient enough to capture the parameters for each stage of project namely, conceptualization and development, implementation and post implementation. The parameters could be decided in consultation with various line Ministries / Departments and DeitY.
4. Since the “e-Kranti: National eGovernance Plan 2.0” is already integrated with Digital India Programme, the existing programme management structure established for National eGovernance Plan at both national and state level has also been decided to be integrated appropriately with the programme management structure being envisaged for Digital India Programme at national and State/UT level.

#### Institutional Mechanism at National Level



## How Digital India will be realized: Pillars of Digital India

Digital India is an umbrella programme that covers multiple Government Ministries and Departments. It weaves together a large number of ideas and thoughts into a single, comprehensive vision so that each of them can be implemented as part of a larger goal. Each individual element stands on its own, but is also part of the larger picture. Digital India is to be implemented by the entire Government with overall coordination being done by the Department of Electronics and Information Technology (DeitY). Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely 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. Each of these areas is a complex programme in itself and cuts across multiple Ministries and Departments.



## IMPLEMENTATION APPROACH

All the initiatives, including establishing and expanding core ICT infrastructure, delivery of services etc under the Digital India programme have definitive completion time targets. Majority of the initiatives are planned to be realized within the next three years. The initiatives planned for early completion ("Early Harvest Programmes") and citizen communication initiatives ("Information for All") have already started going live and are being completed. The Digital India programme aims at pulling together many existing schemes. These schemes will be restructured, revamped and re-focused and will be implemented in a synchronized manner. Many elements are only process improvements with minimal cost implications. The common branding of programmes as Digital India highlights their transformative impact. While

implementing this programme, there would be wider consultations across government, industry, civil society, and citizens to discuss various issues to arrive at innovative solutions for achieving the desired outcomes of Digital India. DeitY has already launched a digital platform named as “myGov” (<http://mygov.in/>(link is external)) to facilitate collaborative and participative governance. Moreover, several consultations and workshops have been organized to discuss the implementation approach of the vision areas of Digital India.

# DIGITAL BANKING

Digital Banking plays the role of a catalyst in achieving the goal of financial inclusion in an economically beneficial manner.

The 'Digital India' initiative, coupled with a payments infrastructure, is laying the cornerstone for a digital economy, keeping in mind the increasing willingness of people to use the internet, and the rising data traffic in the country. The vision of the initiative, as outlined by the Government of India, focusses on the provision of infrastructure as a utility to every citizen, digital empowerment, services on demand and governance.

The impact of 'Digital India' by 2019, as envisaged in the vision document published by GOI, has so far led to:

- An investment of USD18.4 billion to provide last mile internet connectivity
- Setting up of a pan India fiber-optic network by June 2016
- Provision of Wi-Fi services in cities with a population of more than one million
- Provision of internet access to 250,000 village clusters at a cost of about USD 5.9 billion
- Availability of 'digital lockers' to each citizen,
- Development of 100 smart cities in India, for which USD1.2 billion has been allocated
- Universal phone connectivity
- Setting up of 400,000 internet access points
- Digital inclusion targeting job creation for nearly 1.7 crore people trained in IT
- Creation of at least 8.5 crore indirect jobs related to IT
- Focus on moving towards automation in delivery of government services
- Achievement of a leadership position in IT towards betterment of banking services
- Widened internet access to empower citizens digitally.



**Indian Payments** is transforming at an amazing pace. In the last one month, India has witnessed a major change in Economic transactions. The aftereffect of the surprising announcement of Government is perceived in all over India. In this scenario of “demonetization”, digital payment methods have become the prime medium of transaction in e-commerce.

India is a start-up core for the world and smartphone and the internet users in India is increasing day by day. All these factors act as a platform for online payment services. In the very recent past several Banking and Non-Banking institutions are offering electronic payment systems. We have to choose an online payment service for the hassle free cashless transaction. Here we illustrate the top 5 digital payment gateway in India.

## **Digital Payment Methods:**

### **1. Mobile wallet:**

A simple way to carry your cash in digital form. It is an app-based stored value account. Though primarily it was used for bill payment and recharge only. Nowadays mobile wallets are ideal electronic payment medium for all sorts of transactions. Both the Banking and Non-Banking institutions are offering mobile wallet services. You can make your ticket booking, order food, cab booking etc. through the mobile wallets. You can also send money through this online payment processor to another person who has the same mobile wallet platform. **Mobile wallets are funded through debit or credit card or net banking.** So, with this secure digital payment service provider, you can pay with your smartphone, tablet, or smart watch. You must load the mobile wallet on your smartphone, then wallet account must be funded through cards or net banking. After fund addition, you can use your wallet for above-mentioned purposes. the various bank-led mobile wallets are Lime by Axis Bank, Pockets by ICICI Bank, SBI Buddy by SBI, PayZapp by HDFC and Ziggitt by IDFC Bank.

### **2. NUUP/USSD Service | Mobile banking:**

This is a mobile-based digital payment service provider. The full form is National Unified USSD Platform. USSD is an innovative digital payment service and it is the abbreviation of Unstructured Supplementary Service Data.

This method allows mobile banking transactions using the nominal feature of a mobile phone without using mobile internet data facility. It is a combined effort of Banks and telecom service providers. The users of all GSM mobile handsets can avail the service. **A customer can approach banking services by just dialing \*99# from his/her mobile phones.** The mobile No. should have to be registered with his/her Bank account. This service has been launched to cover every common man across the country. The prime services offered under NUUP include fund transfer, balance inquiry, mini statement and other value added services. NUUP is currently available on 11 Multi-lingual languages.

### 3. Net Banking:

Internet Banking portal provides anywhere, anytime, online access to an account. It is an electronic payment system which provides the customers a platform for a broad range of financial transactions through the official website of an institution. Internet Banking offers various services to fulfill your banking demands. The features of net banking are fund Transfer to own and third party accounts, Ticket booking (Rail, air, bus, hotel), online tax payment, online bill payments etc.

The other two special felicities of net banking are **National Electronic Fund Transfer (NEFT)** and **Immediate Payment Service (IMPS)**. NEFT is a one-to-one fund transfer, that means any individual or firm can digitally transfer funds from any bank branch to another individual or firm. If anyone has no bank Account, he or she can transfer funds (Maximum limit of 50,000) through the NEFT-enabled branches. IMPS offer an instant digital fund transfer service using mobile phones. IMPS are used to transfer money instantly within banks across the country through mobile, internet and ATM. This is a safe procedure for your money transaction.

### 4. POS Payment through cards:

Nowadays, marketing in a shopping mall has become an essential part of our lifestyle. Whenever your marketing has completed you can pay through the POS payment. Not only in shopping malls, many shops, and marketplaces are also using POS payment system in the current scenario. This system reduces the headache of carrying cash in your pocket. only a card (debit or credit) swipe can complete the transaction. Most of the Retailers used to offer you to pay through

the POS payment System. **The three key conditions for this payment gateway are POS Device, Merchant Bank a/c and Internet connectivity.** You can pay your bill simply through the card swipe and then enter your pin and your bill amount will be directly deducted from your bank a/c. Don't forget to collect your printed receipt.

### **5. Aadhar Enabled Payment System (AEPS):**

AEPS makes another forward step for Digital India. You may use it in anywhere and anytime. if you do not possess any debit or credit card, then this system is the most helpful payment method for you. To enable this system just go to the bank and provide KYC (Know Your Customer) to open a new bank a/c, make sure that aadhar number is linked to your bank a/c and you are ready to avail this system. At the time of the transaction the bank will authenticate your aadhar and through the micro ATM or POS, they will complete the transaction. AEPS is used in MicroATM and Aadhaar Pay

- **Micro ATM** : MicroATM delivers the full banking services near to doorstep it allows customer to open Aadhaar based eKYC saving account, instant RD/FD, Aadhaar based services, Government enabled Direct Benefit Transfer payments, remittances, Update of mobile and email details of customer, Bill Payments and DTH/Mobile recharges. It offers all the basic financial and non-financial banking services and caters to customers of IDFC bank as well as other bank customers on Aadhaar platform. It can perform a variety of financial & non-financial transactions. It helps customers of any bank in accessing their accounts and performing banking transactions.
- **Aadhaar Pay** : Aadhaar pay is another step towards digital India wherein the merchant smartphone will act like a pos machine wherein the customer can select the bank name and Aadhaar number which is linked, upon entering the amount the customer has to authenticate for the same and the money is credited to the merchant account. Convenience and authenticity is much more in Aadhaar pay as customer has to just remember his/her Aadhaar number and use his thumb impression for the payment.

That's all for the top 5 digital payment methods. You can choose anyone from these top 5 online digital payment systems to be a part of cashless India. For your convenience, we have tabled the features of cashless payment gateways.

### Comparison of Different Digital Payment Systems

Digital Payment Method	Requirements	Useful for whom	Pros	Cons
1 Mobile Wallet	Smartphone, wallet apps, fund transfer to the wallet through your debit or credit card or net banking.	All the card holders and Net-bankers.	Headache free cashless transaction from anytime and anywhere.	You have to pay remittances to bank a/c. Transaction amount is limited.
2 NUUP/USSD Service	Basic featured mobile phone, Mobile no. should be linked with bank a/c.	All GSM service holders.	No need to have mobile internet connection. Digital banking services to every common man.	A minimum transaction cost may be charged to customer. transaction limit is Rs 5,000/day and Rs 50,000/annum
3 Net Banking	Internet connection, your bank A/C have to be enabled net-banking service.	All the Bank A/C holders.	Banking service in anytime and anywhere. Any individual with no Bank A/C can transfer	No. of NEFT settlement is restricted for weekdays and Saturday. No transaction in Holidays. Bank charges is applicable for

Digital Payment Method	Requirements	Useful for whom	Pros	Cons
			fund through NEFT.	availing banking services.
4 POS Payment	POS Device, Merchant Bank a/c and Internet connectivity.	Most of the Retailers used to offer you (card holders) to pay through the System.	Cashless shopping, Fund transfer limit is negotiable between Merchant's Bank and payee Bank.	Loss of connection can be a vital issue during processing.
5 AEPS	An Aadhar card linked with your Bank A/C (KYC provided), micro ATM or POS. Bio-metrics authentication.	All the Aadhar card holders.	Easy Cashless transaction method for the person who has no debit or credit card.	In some remote area micro ATM or POS system may not work properly due to connection problem.
6 UNIFIED PAYMENTS INTERFACE (UPI)	Bank A/C, Mobile number should be linked with bank a/c Smart Phone with internet facility and Debit Card	All the Bank A/C holders who have debit cards.	users can manage multiple bank A/C into a single mobile app.	It is not available for every bank. only 30 banks provide UPI service.
7 Banks Pre-Paid Cards	Bank A/C (KYC provided), Smartphone, internet, MPIN	All the Bank A/C holder	Cashless hackle free transaction offered by all leading banks.	Monthly fund transfer limit is restricted and customer have to pay charges for transaction.
8 Micro ATM	Micro ATM	Anyone who	Through this	The only four

Digital Payment Method	Requirements	Useful for whom	Pros	Cons
	device, Identity authentication for the customers.	has their Identity authentication.	system customer can transact fund into their bank account	services offered by the system are Deposit, Withdrawal, Fund transfer and Balance enquiry.