CHAPTER 2
E-GOVERNANCE INITIATIVES IN INDIA

In the recent years, one of the most conspicuous means of bringing about good governance has been the ICT influx. The power of Information Technology has transformed the entire global which has bought revolution in humans over the past 20 years. Information technology has brought revolutionary changes in every sphere of life. Change in society happens when various thoughts and ideas come together with new innovations and development. Change is led by many factors and our society had always been in the direction to change. There are several changes taking place and the impact of ICT is bringing fluency in the information including entertainment, news and financial and academic material. It has brought people closer together by enabling various forms of social networking.

ICT is all about sharing global knowledge, access, participation and governance in an information age. As moving from the first generation of automated decision-making, and further on to the third generation telecom revolution, the countries across the globe consider themselves paperless, borderless, corruption less and interactive world of electronic governance. India is listed in top ten of ICT leadership and initiatives. The Information and Communication Technology is an extremely powerful instrument for controlling the basic forces in the society. E-governance is one of them. E-governance (Electronic Governance) is basically delivery of government services and information to the citizens using electronic means. ICT is to deliver services to its citizens that have the ability to transform relations with citizens, business and other arms of government. Around the globe, governments have had remarkable success using IT to improve the lives of their citizens. Many governments are increasingly resorting to the use of information technology. Taking into consider the ultimate goal of any government is the betterment of its citizens. Electronic delivery of public services helps the citizens by providing various services under one roof.

E-Governance in India

As a greatest tool of transformation across the world, the Information and Communication Technology has emerged to bring change from industrial age to information age\(^4\). E-governance has changed the working process of the government and has made it easier, transparent and accountable. The ICT allows the sharing of information and making government operations more transparent and quick\(^5\).

The formulation of National e-governance Plan by the Government of India was to expedite deployment of Information Technology in Governance with a vision to improve delivery of government services to citizens, business and other stakeholders. Among the developing countries, India was one of the earliest to respond to the possibilities of using ICTs in developing administration. In 1970 Indian State began to design and execute rural development programs with a relatively visible ICT content. To use ICTs for improving development planning several attempts have been made, a key area of State action in the pre-liberalization era. The Dharampur Sub-District Infrastructure Planning for Development 1997 is one such early example of an attempt to use computer applications for cost optimization and decision-making\(^6\).

Recognizing the importance of electronics in 1970 the Department of electronics was established by the Government of India. In 1980 to implement and support large-scale computerization projects National Informatics Centre (NIC) was established. This was the first major step towards e-governance. A large number of government offices by this time had computers using ‘word processing’. With the introduction of better software gradually, computers were put to other uses too. Advances in communications technology further improved and many government departments started using ICT for a number of applications. However in 1987 launching of NICNET – the national satellite-based computer network was the main thrust for e-governance. Further it was followed by the launch of District Information System of the National Informatics Centre (DISNIC) program to computerize all district offices in the country\(^7\).

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\(^6\) C Krishnan, “Good Governance: The Impact of e-Governance on Good Governance”, Yojana, January 2013

\(^7\) www.nic.in/projects
By 1990 NICNET was extended via the state capitals to all district headquarters. In 1998 the Central Government announced the IT policy to make available Information Technology to all Indians by 2008. This policy aimed to make India IT super power within the next 10 years. Through this portal it was possible to provide a single window access to the information and services of Indian government at all levels from central government to state government to create districts (e-district) and Panchayats (e-Panchayats) for the governments, business and citizens. The information provided in portal is easy for a common man and are interlinked at relevant places in order to provide the visitors with a holistic view.

National Informatics Centre (NIC), have long been committed to provide state-of-the-art solutions to address the Governance needs at all levels. NIC is providing network backbone and e-Governance support to Central Government, State Governments, UT Administrations, Districts and other Government bodies. It offers a wide range of ICT services including Nationwide Communication Network for decentralized planning, improvement in Government services and wider transparency of national and local Governments.

**Information Technology Act, 2000**

Information Technology Act, 2000 the Legislative Act made by the Government of India to provide legal recognition for transactions carried out by means of electronic data interchange and other means of electronic communication commonly referred to as “electronic commerce”, which involve the use of alternatives to paper-based methods of information, to facilitate electronic filing of documents with the government agencies. And it is considered necessary to give effect to the said resolution and to promote efficient delivery of government services by means of reliable electronic records. Below are mentioned the main features of this act:

1. The major aim of this act is to: recognize electronic contracts, prevents computer crimes, and make electronic filing possible.

2. Establishment of National Taskforce of information on Information Technology and software Development in May 1998.

3. Creation of for e-governance to disseminate the best practices in the area of e-governance, national and international initiatives, and IT policies of the government.

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8  www.nic.in
9  www.nic.in
4. Developing e-office solutions to enable various ministries and department to do their work electronically. Modules such as workflow for Draft for Approvals, e-files, e-noting, submission of reports, integrated personal information and financial accounting system have been developed.

5. Setting up of a High Powered committee (HPC) with cabinet secretary as its Chairman to improve administrative efficiency by using Information Technology in government.

6. Designating a joint secretary level office as IT manager in every ministry/Department.

7. Instituting websites by almost all Ministries and Departments and providing information on aspects such their objectives, policies and decisions, contact persons, etc. Some of them have started their electronic newsletters for publicity to their activities on wider scale, and identifying departments which have frequent inter-face with the citizen, and computerizing them on priority basis.\(^\text{10}\)

E-governance is much more than a government website on the internet. It aims to build and strengthen the government’s drive towards effectiveness and transparency for development by managing the country’s social and economic resources.\(^\text{11}\)

In the evolution of e-governance in India importance must be given to quality and speed of implementation in the procedure for IT services and a suitable system motivating people for a quick adoption.\(^\text{12}\) Another milestone in the history of e-governance in India is the enactment of Right to Information Act, 2005 by Indian Parliament empowering the citizens to have the right to access, to inspect to or to take the certified copies of public documents.

**Twelfth Five Year Plan (2012-2017)**

In the Twelfth Five Year Plan the Department of Electronics and Information Technology proposes the vision and objectives of the Plan which is:

1. In order to make the government process transparent, citizen centric, efficient and easily accessible all Government services are to be delivered in electronic mode.

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\(^\text{11}\) S C Bhatnagar, “ICT Policies and e-Strategies”, Asia Pacific, Elsevier, New Delhi, 2004

2. To break information vaults and create interconnected resources for all Government entities

3. To deliver both informational and transactional government services over mobiles and promote innovation in mobile governance

4. In order to accelerate the adoption of E-Governance to build Shared Service Platforms and E-Governance project implementation cycle time to be reduced

5. Through innovative business models and continuous infusion of advanced technology to strengthen and improve sustainability of the existing projects

6. To organize a safe and secure E-Governance cyber world the promotion of ethical use of technology and data is must

7. To form an ecosystem that promotes innovation in ICT for Governance and for applications that can benefit the citizens

In order to extract the vision the targets focus of the Twelfth Five Year Plan (2012-17) is the National Institute for E-Governance (NIG) would be setup as an autonomous State of the Art National Institute which will also train at least 50 employees from Central Government per year on Project Management Certification. An E-Governance Innovation and Research & Development Fund will be created to give adequate motivation to innovate e-Governance and m-Governance. Electronic Delivery of Services (EDS) Bill will be released. Shared Services Platforms for e-Payment, Geographic Information Systems (GIS), call centre, etc. will be created. In the XII Plan period at least one person per family in 50% of the families will be targeted to provide basic IT training. Cyber Security will be a major focus area during the Twelfth Five Year Plan Period. Training on Basic IT Skills will be introduced systematically for the existing and all new entrants into Government service.\(^{13}\)

**National e-Governance action plan (NeGP)**

The National e-governance Plan (NeGP) has been formulated by the Department of Information Technology (DIT) and Department of Administrative Reforms & Public Grievances (DAR&PG). The plan is built on the experience gained in implementing several e-governance initiatives in the country. Department of Electronics and Information Technology has established about more than

\(^{13}\) The 12th Five Year Plan 2012-2017
1,27,002 Common Service Centers across the country as web enabled outlets to access e-Governance services \(^{14}\) through these initiatives. Suitable arrangements for monitoring and coordinating the implementation of National e-Governance Plan under the direction of the competent authorities have been set up. The Department also involves laying down standards and policy guidelines, providing technical support, undertaking capacity building, research and development etc \(^{15}\).

**Vision of NeGP**

- To make all Public 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 realize the basic needs of the common man.

- National e-Governance Plan (NeGP) has a provision for State Wide Area Network (SWAN) to connect all the government offices up to the block level and Common Service Centres (CSCs) for accessing the citizens from the rural areas.

- To install one computer and internet enabled Common Service Centre (CSC) is envisaged to set up for every six villages so that Villagers can easily avail these services. These Common Service Centres (CSCs) are envisaged to offer online Integrated Service Delivery on ‘Anytime, anywhere’ basis.

- The use of Information and Communication Technology (ICT) will enable government to reach citizens thereby improving governance. This will also enable improvement in monitoring and implementing of various government schemes thereby increasing the accountability and transparency in government.

- e-Governance would help in attaining this objective through the provision of citizen centric service delivery at nominal cost, and thereby providing better turnaround times and convenience in demanding and availing services.

- The vision to use e-Governance as the route for governments to strengthen good governance. All services provided through the various e-Governance initiatives are

\(^{14}\) www.csc.gov.in  
\(^{15}\) Department of Electronics and Information Technology
expected to assist the governments at the Central and State levels in reaching the yet ‘unreached’.

- To enable involvement and empowerment of marginalized groups through their participation in the government processes thereby contributing towards poverty reduction and bridging the sharp social and economic divide.

e-Governance is being promotion through a centralized initiative to the extent necessity to ensure citizen-centric orientation, realize the objective of inter-operability of various e-Governance applications and ensure optimal utilization of Information and Communication Technology infrastructure and resources while allowing for a decentralized implementation model. It also aims at identifying successful projects and replicating them with required customization wherever needed. Adoption of unique identification codes for citizens, businesses and property is to be promoted to facilitate integration and avoid ambiguity16.

In the ensuring years, both at the union and at the state level with ongoing computerization, teleconnectivity and internet connectivity, came up with large number of e-governance initiatives. It was introduced to replace an ad hoc array of e-governance initiatives across individual agencies and states that had developed throughout the 1980s and 1990s. The ambitious goal of the government-wide NeGP initiative is to make all government services accessible to the common citizens in his/her locality, through common service delivery outlets.

Judging by these wider possibilities, objectives of NeGP goes far beyond mere computerization of back office operations. E-governance has fundamentally changed the operations of government and has implied a new set of responsibilities to citizens and to the government. But curiously the government has introduced some initiatives at central and state level in order to fulfill the expectations of the people on e-governance projects which are implemented in certain areas for service delivery17. The new frame work action plan of NeGP (figure 2.1) is focusing on the activities to be undertaken by the government of India in order to bring in transparency and accountability.

16 National e-Governance Plan (NeGP)
NeGP focuses not only on providing online services but also to lay foundation for different departments as there is an emergence of many e-governance applications in order to provide online services to citizens, business and government, which would require increasing interactions amongst departments and with external agencies at various levels of government. Table 2.1 represents the following framework of the NeGP providing services at the central and state level and the Mission Mode Projects in India.

Table No. 2.1: Mission Mode Projects in India
NeGP initiative focuses on increased efficiency, equity and transparency of services in order to promote a more citizen-friendly service environment—specifically by reducing the burden of physical visits to separate agencies for citizens, providing ready access to information about the availability of services and reducing the discretion of officials in the delivery of public services.
NeGP approved by Government of India compromising of 31 Mission Mode Projects (MMPs) under the NeGP consisting of 11 central projects are offering proper services to their stakeholders, 13 state projects out of which 7 MMPs that are land records/NLRMP, transport, e-District (pilot), commercial taxes, treasuries and municipalities, Gram Panchayat and agriculture have gone live and delivering services in electronic mode\(^{18}\).

**Central Mission Mode Projects**

A mission mode project (MMP) is an individual project within the National e-Governance Plan (NeGP) that focuses on one aspect of electronic governance, such as banking, land records or commercial taxes etc. NeGP comprises 31 mission mode projects (MMPs), which are further classified as state, central or integrated projects. Each state government can also define five MMPs specific to its individual needs\(^{19}\).

**Immigration, Visa and Foreigner’s Registration & Tracking (IVFRT)**

India besides being a major business and service hub has emerged as a key tourist destination. Thus is necessary for a state to develop prompt and user-friendly services in order to serve the foreigners or visitors visiting the country. [http://passport.nic.in](http://passport.nic.in) provides general information about passport, visa and other councilor services of CPV division, Ministry of External Affairs. Site is backed by a central passport database for the daily status queries. Under the Passport Seva Project, all 77 Passport Seva Kendras are operational. Under the new scheme, approximately 1 lakh passports are being issued every week\(^{20}\).

**UID**

UID conceived as an initiative as the unique identification project provides identification for each resident across the country. It is to be used primarily as the basis for efficient delivery of welfare services across the country. It would also act as a tool for effective monitoring of various programs and schemes of the government\(^{21}\).


\(^{19}\) India.gov.in

\(^{20}\) [http://passport.nic.in](http://passport.nic.in)

\(^{21}\) [https://uidai.gov.in](https://uidai.gov.in)
**Pensions**

The pensions is primarily aimed at making the pension or retirement related information, services and grievances thus, help bridge the gap between the pensioners and the government. It makes the pension handling mechanism accessible online to the needy pensioners, through a combination of interactive and non-interactive components.

**Banking**

Banking is another step forward towards the improving operational efficiency and reducing the delays and efforts involved in handling and settling financial transactions. The banking industry which is implemented by MMP aims at streamlining various e-services initiatives undertaken by individual banks. The implementation is being done by the concerned banks, with the banking Department providing a broad framework and guidance. Example for this is flipkart.

**ePost**

The Department of Posts has modernized the postal services which have been undertaken by all the post offices at the central level. It is done through the computerization and networking using a central server-based system, and setting up of computerized registration centers (CRCs). Through ePost customers can send a message to any address in India with a combination of electronic transmission and physical delivery through a network of more than 1,55,000 Post Offices.

**eOffice**

eOffice has been developed as a standard reusable product amenable to replication across the Governments, both at the Central and the State levels. It is basically transforming the paper based office processes into electronic processes to minimize and eventually eliminate paper forms and manual forwarding is an important aspect in e-Office. The Government of India has recognized the need to modernize the Central Government offices through the introduction of Information and Communications Technology. E-Office is aimed at increasing the usage of work

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22 [indiapost.nic.in](http://indiapost.nic.in)
flow and rule based file routing, quick search and retrieval of files and office orders, digital signatures for authentication, forms and reporting components\(^{23}\).

The main services offered through e-Office, which is an Open architecture based product, are e-File, Knowledge Management System(KMS), e-Leave, e-Tour, Personnel Information System, Collaboration and Messaging Services, etc. e-Office MMP pilots in Department of Administrative Reforms & Public Grievances (DAR&PG), e-Governance Division of the Department and Department of Personnel & Training (Training Division) are under implementation. E-Office has been implemented in Planning Commission, Ministry of Finance, Ministry of HRD, Lal Bahadur Shastri National Academy of Administration (LBSNAA), Ministry of Rural Development, etc. File tracking system based on the Central Secretariat Manual of Office Procedures has been implemented in more than 25 Ministries/Departments.

*Custom and Excise*

Under the Income Tax MMP, over 2.12 crores returns were filed electronically in FY 2013-14 as on 31\(^{st}\) December 2013\(^{24}\). The VAT application is used by the Taxation Department in order to monitor the Revenue generated by the State Government in the form of Collecting Taxes and Monitoring the Sales Returns from the Commercial Establishments in the State. The modules which are ready for implementation are the Registration, Challan, Way Bill, Transit Documents etc\(^{25}\).

*MCA21*

Implemented by Ministry of Corporate Affairs MCA21 project aims to provide easy and secure.

Online access to all services related to registry provided by Union Ministry of Corporate Affairs to various stakeholders including the corporate, professionals, public, financial institutions and banks, Government and the employees of MCA any time and in a suitable manner. MCA21 enables various businesses to register their names and file statutory documents quickly and

\(^{24}\) [http://offerings.nic.in/egovsearchres.asp](http://offerings.nic.in/egovsearchres.asp)
\(^{25}\) [http://megvat.nic.in](http://megvat.nic.in).
easily. It gives public an easy access to relevant records and effective redressal of grievances along with it providing various automating benefits of services in a quick and efficient manner to professionals, financial institutions and employees which ensures proactive and effective compliance of relevant laws and corporate governance\textsuperscript{26}.

Today, over 3004 e-governance services can be accessed across the length and breadth of the country through NeGP\textsuperscript{27}. These services have been enabled by the line departments under various MMPs as well as by the Central and State Governments that have chosen to leverage the digital service delivery infrastructure created under NeGP.

**State Mission Mode projects**

There are various projects integrated across the departments to provide electronic delivery of services to citizens. Hence to promote electronic governance in India the government has already passed a number of projects which are in operation in different states. Significant progress has been made in the implementation of the core infrastructure and also in most of the Mission Mode Projects. There are 30 SWANs and 14 State Data Centers (SDCs) are already operational. The State Service Delivery Gateways (SSDGs) have been implemented in 2 States.

For making public services available to citizens on anytime, anywhere basis, Common Service Centre by Department of Information Technology (DIT) has been set up. Under this Capacity Building Scheme it has established the State e-Mission Teams (SeMTs) in 30 States and over 700 Government officials have been trained in STeP trainings. Standards have been laid down in the areas of open standards, biometric standards, metadata & data standards, localization and Language Technology Standards etc. e-District project has been implemented in 20 districts. Significant progress has also been made in delivery of services identified under various Mission Mode Projects.

There are 13 state MMPs such as National Land Record Modernization Program (NLRMP), Commercial taxes, Transport, E-district, Treasuries, Municipalities, Police- Crime and Criminal


\textsuperscript{27} The National e-Governance Plan
Tracking and Networking System (CCTNS), Agriculture, Gram Panchayats, Employment Exchange, and NeGP has also expanded to include new MMPs in the areas of Health, Education, PDS, Posts, Skill up-gradation, integrated system of crime to adjudication to jail, Safety & Security against crime, RTI etc. In number of states e-governance is used to improve service delivery to their citizens. For evolving effective projects for future it is therefore, extremely important to study and examine the various experiences of various states.

**e-Governance in Municipalities**

A unique initiative of the Government of India conceptualized under the umbrella of the overall National e-Governance Plan (NeGP) and the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) which aims at improving operational efficiencies within Urban Local Bodies (ULBs). With the Introduction of Municipal eGovernance especially state wide (in a large number of municipalities) the adoption of new technology such as computers and mobile devices will provide significant improvements in record keeping, searching, generating bills/receipts, storing large number of records and processing large number tasks etc.

The present focus of the National e-Governance Plan (NeGP) and the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is on the draft (table2.1) which is focusing on an efficient and stream-lined financial management system for municipalities which will be resulting in better governance. Implementation of Accrual Based Accounting and Budgeting is one of the key reform areas under the JNNURM.

*Table No 2.2: Draft for e-municipalities (JNNURM)*

<table>
<thead>
<tr>
<th>S .N</th>
<th>Module</th>
<th>Administrative Efficiency</th>
<th>Service Delivery</th>
<th>Transparency and Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Financial Accounting and</td>
<td>For improved decision making</td>
<td>Annual Financial Statements published</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th></th>
<th>Budgeting</th>
<th>Online availability of financial data</th>
<th>in real-time for citizen review</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Property Taxation</td>
<td>Centralized database of properties with fully digitized demand and collection history</td>
<td>Pay-tax anywhere, including online for improved citizen experience</td>
</tr>
<tr>
<td>3</td>
<td>Trade Licenses</td>
<td>Centralized database of licenses with an alert system for renewal of licenses</td>
<td>Pay-licenses anywhere, including online for improved citizen experience</td>
</tr>
<tr>
<td>4</td>
<td>Land/Estate Management</td>
<td>Centralized database of ULB properties with fully digitized history of rentals and collection history by property</td>
<td>On-line auctioning, pay-rent anywhere, including online for improved citizen experience</td>
</tr>
<tr>
<td>5</td>
<td>Works Management</td>
<td>Fully online, automation of Estimate to Completion for each Project</td>
<td>Online contractor portal for tenders, submission of bills, electronic payments</td>
</tr>
<tr>
<td>6</td>
<td>Stores/Purchasing</td>
<td>Management Fully online, automation of the procurement processes from indent to supplier payments</td>
<td>Online supplier portal for tenders, participation in Rate Contract tenders etc</td>
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<td>7</td>
<td>HRMS/Payroll</td>
<td>Automation of the HR and payroll processes for efficient processing of monthly payroll</td>
<td>Employee Portal for real-time availability of salary, benefits (e.g. GPF), outstanding advances/loans,</td>
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<td></td>
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<td>leaves etc</td>
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<tr>
<td><strong>8</strong></td>
<td><strong>Asset Management</strong></td>
<td>Enumeration of the ULB assets, with their valuation and complete tracking of the asset lifecycle</td>
<td>Asset lifecycle data available to citizens (most notably, the total expenditure – capital and revenue on maintenance, improvement and upkeep of assets)</td>
</tr>
<tr>
<td><strong>9</strong></td>
<td><strong>Legal Case Management System</strong></td>
<td>Database of legal cases with a centralized repository of legal cases for easy search and data retrieval</td>
<td>Improved response times to stakeholders (citizens, suppliers, contractors) for all legal case related issues</td>
</tr>
<tr>
<td><strong>9</strong></td>
<td><strong>Collections System</strong></td>
<td>Computerized, online collection of revenues (tax, non-tax) leading to improved revenues.</td>
<td>Citizen centric processes which offer conveniences like payanywhere, payanytime</td>
</tr>
<tr>
<td><strong>10</strong></td>
<td><strong>Public Grievance and Redressal</strong></td>
<td>Automatic routing of complaints to the relevant departments with automatic status monitoring of complaints.</td>
<td>Citizen feedback system for citizens to provide feedback on the ULB functions.</td>
</tr>
<tr>
<td><strong>11</strong></td>
<td><strong>Birth/Death Registration.</strong></td>
<td>Centralized database of births/deaths and online recording of statistical data allows for improved record-</td>
<td>Online retrieval of birth and death records in addition to integration with hospitals allow for</td>
</tr>
</tbody>
</table>
Presently, one of the most common and often most inefficient interface for citizens with the municipality is the issue of birth and death certificates. An e-governance initiative in this area can go a long way in improving the quality of citizen experience. The system not only allows online registration of birth and death but also has a rich set of reports on births, cause of death, still births, parents’ literacy/education and other demographic data which can be further used for statistical analysis.

**Crime and Criminal Tracking Network & Systems**

CCTNS under the National e-Governance Plan aims at creating a comprehensive and integrated system for enhancing the efficient and effective policing at all levels and especially at the police station level through adoption of principles of e-Governance, and creation of a nationwide networked infrastructure for evolution of IT-enabled state-of-the-art tracking system. The project focuses on making the work process of police much citizen friendly and more transparent via automating the functioning of the police stations. Consigning the Investigating Officers with the latest tools, technology and information in order to carry out the investigation of crime and detection of criminals helps in improving police functioning such as Law and Order, Traffic Management etc. and also facilitates interaction and sharing of information between various Police Stations, Districts, State/UT headquarters and other Police Agencies. It also reduces manual and redundant records keeping and also keeps track of the progress of cases, including cases in Courts.\(^\text{30}\)

CCTNS Project, approximately covers 14,000 Police Stations throughout the country which has been proposed to be automated beside 6000 higher offices in police hierarchy e.g. Circles, Sub-Divisions, Districts, Range, Zones, Police Headquarters, (Statewide Safety Expo)SCRBx including scientific and technical organizations having databases required for providing assistance and information for investigation and other purposes e.g. Finger Print Bureau, Forensic Labs etc\textsuperscript{31}. So far about 2,760 police stations, out of a total of 14,000+ police stations across the country, have been covered under the Scheme.

\textit{ePDS (Public Service Delivery)}

As an end-to-end project PDS computerization is envisaged to cover key functions like supply chain management including allocation and utilization reporting, storage and movement of food grains, grievance redressal and transparency portal, digitization of beneficiary database, Fair Price Shop automation, etc. the PDS portal of India guides the user to avail various services online Vital Statistics, Food grain Schemes, Allocation Policy, Food Process Solution (FPS) Offtake,

\textsuperscript{31} ncrb.gov.in
Allocation & Supply Chain, Management Project Documents, Data Standards and Digitization, Seeding of Aadhar & Bank A/C Number, FPS Automation, Toll Free Helpline, Checklist and Technical Documents. The portal also brings daily updates with new prices\(^\text{32}\). The State Government Portals also facilitate the users to compare and check various states commodity, prices and grains.

**Health**

Undertaken by the Ministry of Health & Family Welfare the ICT program management in the Mother and Child Tracking System (MCTS) program envisages a more comprehensive use of ICT. It includes ICT for Hospital Information Systems, supply chain management for drugs and vaccines, providing ICT tools to ASHA and ANM workers, program management of National Rural Health Mission (NRHM), etc through this MMP\(^\text{33}\).

Under the National e-Governance Plan (NeGP) health was identified as a Mission Mode Project (MMP) in July 2011. The Health MMP outline the five focus areas of service delivery namely: Hospital Information System, Citizen Portal, Supply Chain Management, Government Resource Planning and Integrated Public Health Solution. The institutional framework along with future roadmap looks upon e-Health & m-Health initiatives across the country. As the Health MMP is still in the detailed progress stage and implementation of the mentioned tracks will take place soon nationwide.

**e-panchayat**

Recognizing the need to bring in e-governance some computerization efforts for PRIs have been made by NIC over the years. The Ministry of Panchayati Raj, has therefore decided to take up the computerization of PRIs on a mission mode basis. As per official figures, there are approximately 2,50,000 Panchayats in India mapped by the National Informatics Centre and Ministry of Panchayati Raj on the ministry website but it is difficult to find any information about single Panchayat with this background Digital Panchayat Program across the nation.

\(^{32}\) pdsportal.nic.in

\(^{33}\) nrhm-mcts.nic.in
is initiated and rolled forward by the Department of Information and Technology, with the following objectives:

- To empower citizens of every Panchayat with bottom up and top down information and content;
- To improve development and governance public service delivery at Panchayat level through information on policy programs and implementation;
- Create a digital data house at every Panchayat level;
- To facilitate growth of Panchayat economy through promotion of Panchayat tourism, e-commerce of local produce;
- To put every Panchayat on the global digital map;
- To generate an ICT environment in every Panchayat;
- To give fillip to the Right to Information campaign.

Furthermore, the portal would act as a platform of multipurpose information and communication to showcase local content, culture, best practices, advocate local issues, e-Commerce to the Panchayat villages. Digital Panchayat is a platform for Panchayat representatives to connect with rest of the world.

**e-District**

e-District aims at providing support to the basic administrative unit in order to ensuring efficient delivery of services with improved service levels and make access to these services efficient, reliable, transparent and accountable. The extensive capacity building and training of front level functionaries in order to ensure smooth migration to electronic delivery of e-district services in order to anal out manual delivery of services through Common Service Centers (CSCs) by leveraging the common infrastructure of State Wide Area Network (SWAN), State Data Center (SDC), and State Service Delivery Gateway (SSDG). It delivers all public services at District/
Sub District level through electronic form by the State Portals by using the State Service Delivery Gateways. It has helped in reducing the number of visits of citizens to a Government office / department for availing the services and has also reduced direct interaction of citizen with the Government and encouraged ‘e’-interaction and efficient communication through portal\textsuperscript{36}.

**National Land Records Modernization Program (NLRMP)**

Computerization of Land Records (CLR) was launched in 1988-89 with the intention to remove the inherent flaws in the manual system of maintenance and update of land records. In 1997-98, the scheme was extended to tehsils to start distribution of Records of Rights to landowners on demand. The focus of the entire operation has always been to engage with the Information Technology (IT) to vitalize and transform the existing land records system of the country.

Presently, Digital India Land Records Modernization Program (DILRMP) launched by Government of India in August 2008 aims to modernize management of land records, minimize scope of land/property disputes, enhance transparency in the land records maintenance system, and facilitate moving eventually towards guaranteed conclusive titles to immovable properties in the country. In order to develop a modern, comprehensive and transparent land records management system in the country DILRMP directs to implement the conclusive land-titling system with title guarantee\textsuperscript{37}.

Hence, to transform the entire ecosystem of delivering the public services through the use of Information Technology the Government of India has introduced Digital India program with the vision to transform India into a digitally empowered society and knowledge economy which claims to bring speed, transparency, accountability, reliability and hassle free services on the doorstep.

**e-Kranti – Electronic Delivery of Services (NeGP)**

\textsuperscript{36} edistrict.gov.in
\textsuperscript{37} http://nlrmp.nic.in/
Influx with the new technology of e-governance NeGP has moved a step ahead with the essential pillar of the Digital India initiative eKranti considering the critical need of e-Governance, mobile Governance and Good Governance in the country, the approach and key components approved by the Union Cabinet in 2015 with a 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, are now to follow the key principles of eKranti 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’. eKranti will cover 44 Mission Mode Projects which are at various stages of implementation which can be seen in figure 2.1.

[Diagram showing various policies and projects]

http://www.digitalindia.gov.in/
The Government of India is trying its best to provide equal reach of its e-services and in order to accomplish the purpose eTAAL dashboard has been developed by the Department of Information and Technology as a helpful tool in assessing the uptake of these services. The system analyses the services offered and the adoption and use of the citizens over the e-services. At central and state mission mode projects which resulted (6 months) 29,6002,853 a national eTransaction count\(^39\) in the year 2016. Along with the Digital India Program which emphasizes on Citizen centric services the project will also focus on Digital Infrastructure as a core utility to every citizen by providing Governance and Services on demand which will subsequently empower the citizens digitally.

**E-Governance Initiatives at the State Level**

India has successfully rolled out several national e-governance initiatives, including the establishment of State Wide Area Networks (SWANs), State Data Centre (SDCs), Common Services Centre (CSCs). These projects make use of Technology, Development, Research and Talent consequently to betterly meet the needs of the citizens.

**State Wide Area Networks (SWAN)**

Technical and financial assistance to various States/Union Territories is provided through this scheme. It has been developed as the interconnected backbone network for data, voice, and video communication. SWAN has been operational in 30 States/UTs, namely Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chandigarh, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Puducherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Manipur, Uttar Pradesh, Uttarakhand, Mizoram, Nagaland and West Bengal\(^40\).

**State Data Centre**

As one of the important element, State Data Centre (SDC) has been identified as the infrastructure supporting e-Governance initiatives of National eGovernance Plan (NeGP). Under

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\(^39\) etAAL.gov.in as accessed on 10\(^{th}\) June, 2016

\(^40\) http://deity.gov.in
NeGP, it is proposed to create State Data Centers for the States to consolidate services, applications and infrastructure to provide efficient electronic delivery of G2G, G2C and G2B services. These services can be rendered by the States through common delivery platform seamlessly supported by core Connectivity Infrastructure such as State Wide Area Network (SWAN) and Common Service Centre (CSC) connectivity extended up to village level. State Data Centre would provide many functionalities like Central Repository of the State, Secure Data Storage, Online Delivery of Services, Citizen Information/Services Portal, State Intranet Portal, Disaster Recovery, Remote Management and Service Integration etc. SDCs would also provide better operation & management control and minimize overall cost of Data Management, IT Resource Management, Deployment and other costs\(^{41}\).

**Common Service Centre (CSC)**

In order to introduce e-governance on a massive scale the National e-Governance Plan (NeGP), as part of its commitment in the National Common Minimum Program introduced Common Service Centre (CSC) which would provide high quality and cost-effective video, voice and data content and services, in the areas of e-governance, education, health, telemedicine, entertainment as well as other private services. Most importantly, offer web-enabled e-governance services in rural areas, including application forms, certificates, and utility payments such as electricity, telephone and water bills. In addition to the universe of G2C services, the CSC Guidelines envisage a wide variety of content and services that could be offered which are listed below:

- Agriculture Services (Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries, Veterinary)
- Education & Training Services (School, College, Vocational Education, Employment, etc.) Health Services (Telemedicine, Health Check-ups, Medicines)
- Rural Banking & Insurance Services (Micro-credit, Loans, Insurance)
- Entertainment Services (Movies, Television)
- Utility Services (Bill Payments, Online bookings)
- Commercial Services (DTP, Printing, Internet Browsing, Village level BPO).

\(^{41}\) [http://deity.gov.in](http://deity.gov.in)
Hence, Common Service Centre creates a promising environment for the private sector and Non-Government organizations (NGOs) to play an active role in implementation of the CSC Scheme, thereby becoming a partner of the government in developing, especially the rural India.

Presently, under the Digital India Program DeiTY aims of establishing self sustaining network of 2.5 lakh CSC centers at Gram Panchayat level under Digital India- Pillar 3-Public Internet Access Program – National Rural Internet Mission in order to deliver various citizen centric services. CSC 2.0 is a model considered as a transaction based and service delivery based model which delivers a large bouquet of e-services through a single delivery platform, resulting in sustainability increase of the CSCs across the country. This project proposes to strengthen the CSC network by ensuring standardization of service availability and ensuring capacity building of all stakeholders involved. The scheme also tends to provide manpower resources both to the State Designated Agency (SDA) SDA as well as to District e-Governance Society(DeGS) for
enabling them to perform the desired role function, such as, assistance, coordination for execution of project till delivery of e-Governance services, monitoring and assessment. A Help Desk Support will also be provided\(^{42}\).

The Government of India almost in all the states with help of State Government are implementing many e-Governance projects in order to provide quality and improved services to the citizens. The Common Services Centre provide web-enabled e-governance services along with application forms, certificates, and utility payments such as electricity, telephone and water bills\(^{43}\) at one particular place. The CSCs has resulted in simplification of procedures in order to avail public services and has also helped in reducing corruption, delays and has brought transparency and accountability in the functioning of government. The government has passed various projects which are operational and successfully active in different states in order to promote electronic governance in India. The e-Governance initiatives in different states are discussed below:

**Andhra Pradesh**

**APSWAN (Andhra Pradesh State Wide Area Network)**

APSWAN is voice, data and video communication enabled network in the state of Andhra Pradesh. The network enables data transfer and exchanges across government department by connecting the state secretariat with 25 centers throughout the state. It has 2 Mbps back bone for data voice and video communication. The Andhra Pradesh government’s IT department has been providing one network for the state secretariat, district collectorate and other offices at the district level. The network also aims to connect ‘mandal’ headquarters, other towns and eventually the villages\(^{44}\).

**e-Seva**

E-Seva or TWINS (Twin Cities Integrated Network Services) launched in Hyderabad in December 1999 with a view to provide single window services to the citizens for making bill

\(^{42}\) [http://deity.gov.in/](http://deity.gov.in/)

\(^{43}\) [www.csc.gov.in](http://www.csc.gov.in/

\(^{44}\) [http/www.apt.s.gov.in/apswan.html](http://www.apt.s.gov.in/apswan.html)
payments. The single window raised the expectations of the citizens that resulted in an increased demand for similar Integrated Citizen Services Centers in other parts of the city. Thus, 10 more centers were opened in August 2001 and the project renamed as e-seva, meaning electronic services\(^\text{45}\) which has extended to 18 other locations with the private participation\(^\text{46}\). The centers are the partnerships among the private firms (which provide hardware in return transaction fees) and the government (supplies the staff for running the project).

e-seva offers a wide spectrum of services to citizens, literally on their doorstep and at a convenient time to them. E-seva centers functions 7 days a week including holidays operating from 8.00 am to 8.00 pm on all working days and 9.00 am to 1.00 pm on holidays, keeping in view the citizen’s convenience. Presently, there are 51 eSeva centres with 400 service counters spread over the Twin Cities and Ranga Reddy District. All the service counters are facilitated with an electronic queuing system. It is ‘one-stop-shop' for over 66 G2C and B2C services. There are no jurisdiction limits any citizen in the twin cities can avail of the services at any of the 51 eSeva service centres\(^\text{47}\).

Through the centres, the government of Andhra Pradesh has made it easy in transacting multiple business by offering the services such as Payment of Utilities Bills (Electricity bills, Water and sewerage bills, Telephone bills (BSNL & TATA Tele Services), Property Tax), Certificates Registration of births/deaths, Issue of birth/death certificates, Reservation of bus tickets, Sale of passport application forms, Receipt of passport applications, Internet-enabled electronic payments, Downloading of forms and Government Orders (GOs), and so on (http://www.esevaonline.com).

**FAST (Fully Automated Services of Transport Department)**

The Government of Andhra Pradesh launched Fully Automated Services of Transport system whereby 37 regional offices are connected to provide computerized services like License New Registration, License Permits / Licenses Issue / renewal of trade licenses, Transport Department


\(^{47}\) https://www.esevaonline.com/
Services, Change of address of a vehicle owner, Transfer of ownership of a vehicle Issue of learners’, licenses Issue / renewal of driving licenses (non-transport vehicles), Registration of new vehicles and so on. CFST (Citizen Friendly Services of Transport Department) is another name given to FAST. It intends to build comprehensive database and provides online services to the public covering all the services of the transport department. The state has interconnected all the offices through APSWAN in order to make services more convenient for its citizens.

**CARD (Computer aided Administration of Registration Department)**

Computer-aided Administration of Registration Department (CARD) project started in 1998 which bought computerized counters for land registration at registration offices throughout Andhra Pradesh. The state had a flourishing business of brokers and middlemen who exploited citizens selling or buying property. The project ‘CARD’ is an attempt to reform this system through the use of IT and to improve citizen-government interfaces and serves as a best practice to be replicated by them. The Registration Department of the Government of Andhra Pradesh performs the function of registration of deeds, valuation of immovable property, collection of revenue (stamp duty and registration fee), preservation of copies of documents, issuance of certified copies of documents, issue of encumbrance certificates and registration of societies, firms, marriages etc. The department has 387 Sub Registrar Offices (SRO) in 23 districts of Andhra Pradesh. The gross revenue earned by the department is Rs.12 billion. The Computer-Aided Administration of Registration Department (CARD) project was conceptualized to computerize all the activities and procedures of the Registration Department. Presently, the project covers the whole state of Andhra Pradesh.

The project has increased the speed of registering property and producing related documents. Previously, citizens had to wait for three to seven days to obtain encumbrance certificates but with the implementation of CARD system they receive such certificates in just 10 minutes. Similarly, certified copies of the documents were earlier issued after seven days, while through the system of CARD; citizens can now get them in only 15 minute. The time taken to register a

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49 www.indiaurbanportal.in
deed or a document earlier was a lot of time consuming and the waiting period was almost a week, but the CARD; reduced the time from three to seven days to one day\textsuperscript{50}.

The major achievements of this project are connectivity to e-seva centers for payment of vehicle taxes, introducing of SMS system to relevant personnel for retrieving vehicles and license particulars, interconnectivity between FAST system and police department in order to transmission the data. And few more services such as receipt of applications for new telephone connections, sale of non-judicial stamps, document writing service, collection of small savings, receipt of complaints or requests in connection with citizen services are soon to be availed by the citizens of the state\textsuperscript{51}.

**Assam**

**e-Panjeeyan**

e-Panjeeyan is designed and developed by NIC Assam State Center and is based on JEE and MySQL as per the rules of Registration Act. The software covers the entire cycle of a deed registration right from deed presentation to issue of the deed. The Statewide Computerization of Registration (ePanjeeyan) Project in Assam is implemented by the Revenue and Disaster Management Department which is actively supported by the Finance Department, under the Assam Governance and Public Resource Management Project (AGPRMP) funded by the Asian Development Bank.

Under the Computerization of Registration the project covers 75 Sub-Registrar Offices out of 77 across the State replacing the earlier manual system of maintaining records and registers. The registration process carried out in sub-registrar offices is a mean of recording documents like sale deed, mortgage, agreement, lease deed, power of attorney, will, etc. It is a legal status of the document and provides a measure of security to the transaction and minimizes the scope of disputes. The government charges with fee in the form of stamp duties and registration fees which is to be deposited in sub-registrar offices. This process of re-engineering through application of information technology has brought about a remarkable change in the service

\textsuperscript{50} Navneet Kaur, "Information and Communication Technology for governance; opportunities and Challenges", Noval Publications, New Delhi, 2008

\textsuperscript{51} https://www.esevaonline.com
delivery system and improved efficiency in the offices\textsuperscript{52}. The Department of Administrative Reforms and Public Grievances, Government of India, has selected the Computerization of Registration (Panjeeyan) Project in Assam for the prestigious ‘Gold Icon’ in the National Awards for e-Governance for 2012-13 for Excellence in Government Process Re-engineering.

\textit{DAK}

An Integrated On-line DAK Management System (IDOMS) has been developed and successfully implemented by NIC team in the office of CAG. All the information regarding the movement of Files and letters received and dispatched from the sections are stored in this system. As an integrated package it gives administrative support right from login, Diarizing, Receipt & Forward, Disposal, Dispatch& Posting etc, in addition to various reports for the management and queries to track the status of letters. The system helps the user in tracing the movement of files instantaneously. The system facilitates the office in monitoring the pendency of files/letters. This application is developed to computerize all the telephone /mobile connections and bills of all the departments under Government of Assam\textsuperscript{53}.

\textit{Dharitri or Computerized Land Records System}

In Assam for the computerization of Land records, the State Unit of Assam NIC developed its own web-enabled system known as Dharitri. This software is standardized and is implemented on the pilot basis at the Sonitpur district of the state. It maintains updating of Land Records and workflow based automated mutation system including automatic correction of Chitha and Jamabandi records through online mutation system, efficient online delivery of quality services (mutation, copy of Record-of-Rights, various land based certificates etc.) to the citizens, generating various MIS reports for faster decision making. The Land Records System of 20 out of the 27 districts of Assam has been computerized. At present, site preparation, hardware &

\textsuperscript{52} Shri Deepak Goswami and Shri Devajit Bhattacharya, “\textit{Widening e-Governance Canvas- Selected e-Governance Initiatives in India’}, The Icfai University Press, 2011

\textsuperscript{53} www.assam.nic.in
software purchase, and training activities are going on for its roll out to 174 circles of the state within this year\(^{54}\).

**e-District**

Assam is one of the 14 states in the country, where the e-District imitative was planned as "Pilot" project. The Government of Assam has been selected (Goalpara & Sonitpur Districts) as pilot districts for Assam which is totally funded by the DeitY, Government of India. Assam is one of the first states in the country to have successfully implemented the pilot project in both the pilot districts i.e. Sonitpur and Goalpara. The districts of Goalpara had gone functioning in the month of November'2009 and Sonitpur in January'2010. The various kinds of certificates, Orders etc are being issued from the two District Administration offices and at the same time leveraging the other NeGP core infrastructure like ASWAN and CSC for service delivery. The two Deputy Commissioners have now been able to issue digitally signed certificates for various G2C services\(^ {55}\). The following table 2.2 is the detailed list of services under Pilot e-District implementation:

### Table No. 2.3: List of Service under Pilot e-District implementation

<table>
<thead>
<tr>
<th>S. No</th>
<th>Service Category</th>
<th>Services</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Certificates</td>
<td>Permanent Residence Certificate</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Senior Citizen Certificate</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Next of Kin Certificate</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Creamy Layer Certificate</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land Valuation Certificate</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bakizai Clearance Certificates</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Income Certificate</td>
<td>Functional</td>
</tr>
<tr>
<td>2</td>
<td>Permissions / Orders</td>
<td>Delayed Birth Registration</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delayed Death Registration</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Special Events U/s 144 CrPC</td>
<td>Functional</td>
</tr>
<tr>
<td>3</td>
<td>Certified Copies</td>
<td>Certified Copy of Electoral Roll</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Copy of Mutation Order</td>
<td>Functional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Copy of Court Order</td>
<td>Functional</td>
</tr>
</tbody>
</table>

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\(^{54}\) http://egovreach.in
\(^{55}\) http://online.assam.gov.in
<table>
<thead>
<tr>
<th></th>
<th>Certified Copy of Jamabandi</th>
<th>Functional</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Family Identity Card Services</td>
<td>Application for New FIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application for modification of FIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application for duplicate of FIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application for surrender</td>
</tr>
<tr>
<td>5</td>
<td>Pension</td>
<td>Application for National Old Age Pension (NOAP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application for National Family benefit Scheme (NFBS)</td>
</tr>
<tr>
<td>6</td>
<td>Right to Information</td>
<td>Application for information under RTI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application for First Appeal</td>
</tr>
<tr>
<td>7</td>
<td>Grievances</td>
<td>Application and status tracking</td>
</tr>
</tbody>
</table>

Source: [http://online.assam.gov.in/](http://online.assam.gov.in/)

**Karnataka**

**Bhoomi**

The department of revenue in Karnataka state has computerized 20 million records of land ownership of 6.7 million farmers in the State. Bhoomi is a G2C project that aims to end harassment and exploitation of the farmers by making land records instantly available and also bring transparency of records online. Karnataka has 20 million land records of 27 lakhs farmers, in about 27000 villages. Land records, that used to be manually maintained by 9,000 village officials and took endless queues and unsavory demands at the sub-registrars' offices, is now just

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a computer print-out\textsuperscript{57}. Today, for a copy a fee of Rs 15 is paid and a printed copy of RTC can be obtained online at computerized land record kiosks (Bhoomi Centres) in 177 taluk offices\textsuperscript{58}.

The Kiosk are setup in each taluk to issue the land records documents to public on demand, Finger print (Bio-metrics) authentication to ensure fool proof system, PKI enabled BHOMI & integration with Sub-Registrar's data, Mutation requests processed on First-in First-out Basis\textsuperscript{59}. It facilitates in preparation of annual set of records. The system was brought in to rampant corruption, tempering of records and delays in recording or accessing any particular records. The project *Bhoomi* has changed the entire system by compressing the entire data into digital format and setting up kiosks in 177 talukas from where by paying Rs 15 farmers can get the revenue document. The software of *bhoomi* is developed by National Informatics Centre. The total 700 officials- three village accountants, one deputy tehsildar for 177 sub-districts were trained for the purpose of the project in order to maintain the land records\textsuperscript{60}.

Bhoomi is not only helpful in records and revenue process but also in providing inputs for planning purposes. Based on the success story of this project and its innovations, the Union Ministry of Communications and Information Technology has announced that *Bhoomi* would be a national model for computerization of land records and replicated throughout the country. In fact, *Bhoomi* envisages offering some additional services in the near future such as issue of land records with digital signature, connectivity with courts and banks and more.

**Khajane**

It is a Government to Government (G2G) project. Being the first project of its kind in India where the entire treasury activity has been computerized. The online treasury project, Khajane, computerizes all the 216 treasury offices in Karnataka and is connected to a central server at the state secretariat through VSAT (Very Small Aperture Terminal) in Bangalore. With 216 treasuries functioning across the state, of them 31 are district-level treasuries (three special district treasuries in Bangalore and one in Hubli) and 185 are sub-treasuries at the *taluk and sub-

\textsuperscript{57} Times of India, 24\textsuperscript{th} June 2006  
\textsuperscript{58} http://www.bangaloriet.com/html/egovern/Bhoomifrm.html  
\textsuperscript{59} www.nic.in  
\textsuperscript{60} Maloy Patnaik, “India e-Celerated: Indian Perspective of e-Governance Implementation”, Journal of the Eighth National Conference on e-Governance, Bhubaneswar 3\textsuperscript{rd}-5\textsuperscript{th} February, 2005, p 80
taluk levels. All the treasuries in the state are banking treasuries, where the cash transaction is handled by agency banks. The treasuries in the state disburses salaries to about 7 lakh government and grant-in-aid employees, services 4.3 lakh pensioners and 15.7 lakh social security pensioners. From 228 departments, 21,000 drawing officers draw money for 2117 schemes from the treasuries in the state. The treasury handles payments of over 200 billion annually. In addition to state government transactions, the treasuries also handle the zilla panchayat and taluk panchayat transactions, which is unique in the country.

Kaveri

The department of stamps and registration has computerized the 200 sub registrar offices in the state under this program. Today registering of any document has been from 30 days to just 30 minutes. Computerization of land registration in Karnataka known as Kaveri has facilitated the speedy registration without intermediaries and speed money.

A total of 30 various kinds of e-governance projects are initiated in Karnataka and about 88 government departments have published websites that enables the citizens to access information regarding these departments. The most important process of e-governance however involves transformation of governance and the softer issues concerning training, hand holding and change management. The designing of these soft issues determine the success and failure of e-governance programs.

SAKALA

By publicizing the legislation of 'Karnataka Guarantee of services to citizens Act, 2011' the government of Karnataka brings transparency, predictability to the delivery of services to its citizens. A total of 151 services under 11 departments deliver services to the citizens who apply for the same in a time bound and predictable time. The GSC system provides with the acknowledgement to the citizens at the time of applying for the services. The acknowledgement details the citizen about the service requested and the probable date of delivery. The status of the request can be monitored through the portal www.sakala.kar.nic.in and also citizens get the

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61 www.csi-sigegov.org
SMSes in respect of acceptance of the request and as well as approval of the request. There are various MIS reports built into the system for senior officers of the department to monitor the receipts and disposal of the request. And also a compensatory module and Appellate authority modules are included in the system in order to keep a check on officer who defaults as it will show cause notices and competent the concerned officer to give compensatory cost to the aggrieved citizen.

- Commercial Taxes department
- Education department
- Food and civil supplies department
- Health and Family Welfare department
- Home Department
- Labour department
- Revenue department
- Rural development and Panchayati Raj department
- Transport department
- Urban Development department
- Women and Child Welfare department
- Industries and commerce department Animal Husbandry and Fisheries Department
- Housing Department
- Kannada, Culture and Information Department
- Public Works, Ports and Inland water Transport Department
- Forest, Ecology and Environment Department
Every month more than 15 lakh transactions are being handled for timely delivery of services to the citizens without any hassle. The SAKALA application has been developed by NIC on a state of the art platform with mobile interfaces for SMS delivery periodically to the concerned63.

Nada Kacheri

Nada Kacheri a G2C application for delivering services at the Sub Tehsil level is a single window delivery system. There are about 770 such locations for citizens’ interaction with the Government. The services include issue of certificates such as caste, income, residence, agriculturist and social security pensions. It is a Single Window system for delivery of G2C services, like certificates of birth & death, caste, income, residence and the like; Orders for Social Security Schemes such as old age pension, widow pension and so on. This is implemented throughout the State in 203 taluks where back end activities are being performed. Implementation of this has eased the life of a common man with the Government services available in the village itself. With the repository of digitally signed certificates issued earlier, there has been considerable reduction in processing time. On an average more than 30,000 requests are processed every day. This application is also integrated with the application for Delivery of Services to Citizens under the KGSC act64.

Tamil Nadu

Tamil Nadu e-Services of Transport Department

A single portal which enables Citizens to file Learner’s License application online, Register their Grievances, know the Status of their Redressal, Appointments to visit RTOs and know their RTOs has been implemented. It also provides the facility to Dealers to file the New Vehicle Registration applications online, generation of Heavy Vehicle Training Course attended certificate online, filing of applications by the Financier for endorsement of Hire Purchase agreement and hire purchase Termination online. 1577 Driving Schools and 1307 Dealers have

63  www.kar.nic.in
64  www.nadakacheri.karnataka.gov.in
already enrolled. More than 1,10,000 New Vehicle Registration applications, 60,000 Learner’s License applications are filed through this system and 15,000 Heavy Vehicle Training Course attended certificates are being generated through this system every month.65

**Tamil Nadu - e-Services for Department of Commercial Taxes**

In order to facilitate the Dealers of Commercial Taxes the Government of Tamil Nadu provides the anytime anywhere services like Online filing of VAT returns, Online payment of Taxes with 5 different Banks, Online submission of Form-W refund Claims, Online filing of e-Request for saleable forms, Fast Track Clearance system at Check post and Online submission of New Registration application. It helps the Department to monitor the status of Returns filed by the Dealers and also to identify the Non-filers. More than 3, 10,000 Dealers are enabled for filing e-Returns online. As of now, average of 2, 30, 000 Dealers are filing their Returns online every month.66

**Tamil Nadu - eDistrict Scholarship System**

The Web based system implemented by the Government of Tamil Nadu, provides a facility for students to file application for scholarship online through their respective Institutions, as a first step towards bringing in transparency in the processing of the scholarship forms at various levels of the Government. The system has the necessary provision for requisite back office work flow for processing the application. It facilitates quicker processing of scholarship applications of the student and also it provides the status of the scholarship application through the website/CSC/SMS to the students. There are 1200 institutions dealing with the scholarship of the BC/MBC and 54 institutions for SC/ST students are making use of 243 this facility in the state.67

**Tamil Nadu - eDistrict Project of Social Welfare Department**

An initiative of Social Welfare department covering 215 Citizen Service Centers and 10 Block Offices of the Pilot district of Krishnagiri District to provide five different services of interest to the citizens. Services of Marriage Assistance to Widow Daughter, Orphan Girls, Widow

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65 [tnsta.gov.in](http://tnsta.gov.in)
66 Commercial Tax Department, Tamil Nadu
67 [http://edistrict.tn.gov.in](http://edistrict.tn.gov.in)
Remarriage, Inter Caste and Child protection scheme are some of the services one can avail through the registered CSCs or facilitation centers at Block/District/Taluk. Being a workflow based application the transparency in processing the application for the marriage assistance is provided to the citizens who can verify the status of their submitted application. Facility to provide the SMS messaging service to the citizens after the approval of their application is also implemented. More than 885 applications have been received to date and are in different stages of processing\textsuperscript{68}.

**Tamil Nadu Technical Institutions e-Governance Portal for Directorate of Technical Education**

To enable the Citizens to get basic details of all the 430+ Polytechnic Colleges and 450+Engineering Colleges and to enable the Diploma Students studying in these Polytechnic Colleges to know the Attendance details and Semester Examination results for the current Academic Year, this web application was designed and hosted by the DoTE of Government of Tamil Nadu. This portal has 3 different sections for the Citizen, for the Polytechnic Colleges and for the Student of Polytechnic Colleges to get to know the entire details of their interest of Polytechnic and profile of all the institutions. More than 5.45 lakhs of citizens visited the site from its launch in March 2010\textsuperscript{69}.

Hence with the Information Technology Department, Government of Tamil Nadu several State Government Departments have already taken various innovative steps to promote e-Governance and have drawn up a roadmap for IT implementation and delivery of services to the citizens online. Every department in the State is making renewed thrust for taking their work online. The idea is to enable the people in the State to access more and more government services through the online route with minimum hassle\textsuperscript{70}.

With the idea of developing e-Governance at a faster pace in Tamil Nadu, the State Government has established the Tamil Nadu e-Governance Agency (TNeGA). The primary objective of TNeGA is to design, deliver and administer e-Governance projects by providing the necessary administrative, financial, legal and technical framework in the State. Over the years, TNeGA has

\textsuperscript{68} http://www.nic.in/state/Tamil%20Nadu
\textsuperscript{69} http://intradote.tn.nic.in
\textsuperscript{70} http://egov.eletsonline.com
been playing a seminal role in facilitating the development of e-service centers across the State through suitable public-private partnerships. They can interact with the departments literally at their doorsteps. Tamil Nadu has in fact progressively aligned its entire e-Governance plan in consonance with NeGP ever since its formulation in May 2006 by the Government of India.\(^{71}\)

**Kerala**

**Akshaya**

Dr. A.P.J. Abdul Kalam, former President of India on 18th November 2002 launched an ambitious e-Literacy program. Akshaya e-literacy centers have transformed themselves into effective Common Service Centers (CSCs) that help the public to avail a multitude of G2C, G2B as well as B2B services under one roof. At present close to 2,300 Akshaya e-centers are spread across Kerala which have been set up with every panchayat having at least 2 centers. The multitude of services offered through Akshaya centers are Aadhaar enrolment, e-District services, and utility bill payments, ration card applications, Motor vehicle license payments, RSBY CHIAK (Comprehensive Health Insurance Scheme run by Health Insurance Agency of Kerala), enrolments, Labor welfare boards, Aadhaar seeding, Farmers’ data entry and University fees.\(^{72}\)

Recently, Akshaya centers have forayed into banking and insurance sectors. Akshaya entrepreneurs have got more than 650 IRDA licenses and are offering insurance policies to the rural populace. With the starting of Kiosk banking and Micro ATMs in Akshaya centers 1000 Akshaya centers will be providing banking services at the doorstep of the citizens. From basic IT education and training in internet, the program turned out to be one of the most successful models for effective proactive citizen service centers in India.\(^{73}\)

**Information Kerala Mission**

Information Kerala Mission has implemented various e-Governance applications in Panchayats and Municipalities and provides various services like birth, marriage & death registration, plan scheme monitoring, property tax e-payment, social security pensions, double entry accounting, building permits and public works estimation.

\(^{71}\) [http://www.tnega.in]

\(^{72}\) Times of India, 2012

\(^{73}\) [www.akshaya.kerala.gov.in]


**e-District Public Portal**

e-District public portal hosts the government services like possession/income/caste certificates, public grievances, payment of government utility bills, University fees and submission of applications and payments under Right to Information Act, can be easily done not only through Akshaya Customer Service Centers but also over Internet from anywhere using Internet banking, credit card or debit card of 70 banks. There are 503 services that are under the e-District portal which cover services of more than 10 departments. Through this portal, Kerala has already recorded 55 lakh transactions and the project is implemented in all districts of Kerala by March 2013.

**FRIENDS (Fast, Reliable, Instant, Efficient and Network for disbursement of services)**
The project aims at facilitating the provision of services within a corporation or municipality at a single centre. It is a ‘Single Window Scheme’ in which the consumer is given the option of paying for the common services rendered to him under a single roof. Fourteen centers have been established in all the districts headquarters in order to provide smooth and transparent, fast, reliable, instant, efficient services to its citizens. The counter handle around 1000 types of payments such as electricity and water, revenue taxes, license fees, motor vehicles taxes etc. Local bodies and seven government departments/agencies such as Kerala State Electricity, Kerala Water Authority, BSNL, Revenue, Civil Supplies and Vehicle Departments and Universities have collaborated to provide these services.

FRIENDS here also provide the facility to reserve and cancel railway tickets between 8 a.m and 1 p.m. FRIENDS, India’s first fully computerized Collectorate serves 35 lakh + families, the first largest deployment of wireless network in the World. Earlier citizens were expected to pay at office of the department or concerned agency which means that every citizen had to personally visit the different offices and wait for hours in queue to pay the taxes and other payments to the government.

**SPARK (Service & Payroll Administrative Repository for Kerala)**

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74 edistrict.kerala.gov.in  
76 The Hindu, New Delhi, March 29th 2008  
77 C Krishan, “The Impact of e-Governance on Good Governance”, Yojana, January 2013
SPARK is a government administration system to bring the payroll and finance related activities of Kerala State employees within a single application. Today, all the Government staff is paid salaries and emoluments only through SPARK application.

**Motor Vehicles Department**

“SMART MOVE” application has been rolled out which automated the following activities: Vehicle number Registration facility, allotment of number to vehicles, Issuance of permits, Tax calculation including arrears and Computing & display of accurate amount of fees to be collected for every service, ensuring no shortage occurs in the funds collected, due to ambiguity or lack of knowledge of the appropriate fee. The Motor Vehicles Department’s central database contains, details of around 66 Lakhs vehicles and around 1.2 crore driving licenses. For this purpose a web site for the department is developed (http://keralamvd.gov.in) using Joomla – open source content management tool and various e-Services and m-Services has been enabled through this portal. Through the portal many facilities like submitting e-Application for various departmental services and information related to vehicles, driving license, file status etc. has been enabled\(^78\).

**Commercial Taxes Department**

Kerala Commercial Taxes is the first such department in India to have implemented 100% e-filing of taxes completely online through KVATIS application.

**CCC (Citizen Call Centre)**

It's a single window IT enabled facility, using the number 155300, which acts as an intermediate between citizens and Government to interact effectively through telephone. CCC is providing all the services in a 24x7 fashion and working on all calendar days except national holidays. The calls are being answered by a team of Call Centre Executives, who are highly experienced and skilled professionals Thiruvananthapuram is now serving more than 55 Government departments, organizations and projects provides information and complaint registry services to the common people\(^79\).

**KSWAN (Kerala State Wide Area Network)**

\(^78\) [http://www.csi-sigegov.org/projects09_10/Section2/Sec2-Chapter22.pdf](http://www.csi-sigegov.org/projects09_10/Section2/Sec2-Chapter22.pdf)

\(^79\) [http://www.itmission.kerala.gov.in/](http://www.itmission.kerala.gov.in/)
KSWAN is being setup as a backbone of the State Information Infrastructure (SII) connecting Thiruvananthapuram, Kochi & Kozhikode and extending to 3 NOCs, 14 districts and 152 blocks of the state. KSWAN connects more than 3100 offices in the state.

**IDEAS (Information and Data Exchange Advanced System)**

The Information Technology Department has implemented ‘IDEAS’, an advanced file information system, to track files of the offices of the State government, in a manageable realm of electronic governance, utilizing the core strengths of Information Technology. This system makes the government more transparent and approachable for the citizens, bringing benefits in its overall governance. Each file in the Secretariat system can be tracked online (www.kerala.gov.in) by the common citizens through the IDEAS software including the GOs, Circulars and Laws.

**Kerala State IT Mission**

Kerala State IT Mission (KSITM) is the nodal agency in Kerala which enroll a citizen under a user ID in a way to avail various services mentioned above. It is appointed by the Government of Kerala for UID enrolment. Akshaya centres and Keltron (Kerala State Electronic Development Corporation Limited) are the two enrolment agencies appointed by KSITM for UID enrolment. There are about 1,000 enrolment stations and enrolling machines (for both Akshaya and Keltron) spread over Kerala. All the 14 districts of the state are covered under the national program of Direct Benefit Transfer Scheme. Akshaya Election Commission Kerala has implemented electoral roll search and online voter registration in Kerala along with BLO registration for the state of Kerala.

**West Bengal**

**e-kolkata service centre**

E-Kolkata centres are an important milestone in the ongoing e-governance program that KMC had taken up since 2005. The objective of these centres is to provide multiple services to the citizens of Kolkata under one roof, where they can pay their bills, property tax, license fees & renewal, etc. The computers at these centres are connected to the KMC Head Quarter through

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80 http://sics.kerala.gov.in/
81 The 17th National Conference on e-Governance at Kochi on 30th and 31st January, 2014
KMC-Net. Currently there are 10 centres around the city offering services such as Assessment (PD Bill, FS Bill & LOI), License (New & Renewal), Building, Water Supply, Drainage, Advertisement (LUC & Non-LUC paying), Amusement (Renewal), Market, Parking, Survey & Estate, Bustee, Parks and Squares, MAT, Engineering, Birth Certificates and Grievance registration system. These centres have multiple counters. The citizens visiting the centre need to collect a token from an automated machine and wait till his/her token number is displayed at the large electronic display board with counter number82.

Smart Card

The West Bengal Government is rolling out Transport Smart Cards soon. The Transport Smart Card, with 4KB microprocessor and using biometric security system which will store details of the driver and the vehicle. It is a small electronic card, resembling a credit card in size and shape, contains an embedded micro processor for free of cost. These cards have been designed for readability anywhere in the country and thus help in transport management and crime tracking. Hence the attendances of the employees in Government Offices in West Bengal are held through Smart Card. Smart Card Based Driving License & Registering Certificate will improve the transport facilities as more conveniently and efficiently83.

Telemedicine

The project is funded by Ministry of Communication and Information Technology under the Department of Information Technology of the Government of India. It is planned to implement several Telemedicine Projects to provide specialists’ services for diagnosis, investigation, monitoring, medical consultation from Medical Colleges and Hospitals/Specialty Centers located mainly in Kolkata and is connected to a number of Hospitals in the state. There was a need to be designed that can work with all types of communication links i.e. ISDN, leased line, VSAT including low bandwidth PSTN lines which is the only mode of telecommunication in many rural areas. It covers various diseases – Tropical diseases, Radiology, Pediatrics, Orthopedics, General medicine, Cardiology, Neurology, Oncology, HIV, Dermatology, etc. The creation, maintenance and analysis of database and statistics of patients, medical records, continuous upgradation of systems and imparting training to doctors and paramedic staffs are incorporated as

82 www.kmcgov.in
83 Times of India, 2015
part of the project. It also planned to make educational and administrative uses of these technologies in the support of the health care such as distance learning, continuing medical education for health practitioners in remote areas\textsuperscript{84}.

**Maharashtra**

**Rojgar Wahini**

The Government of Maharashtra has developed the department of Employment and self-Employment (DE & SE), as Rojgar Wahini. It provides free services like vocational guidance, job opportunities and self-employment guidance to the job seekers. It also collects, compiles and provides the statistical information to the planning commission and other planning bodies to be used for manpower planning. It is a single point of contact of the services provided by the Department.

It provides registration and update facilities of job advertisements, Departmental contact details, advice on possible jobs and occupations, special information for disabled persons. Candidates/registered youth can access references relevant to job seeking, like coaching classes for competitive Examinations, Books, Publications, Newspapers, TV & Radio programs. The Self-Employment guidance of the Department of E & SE provides information, guidance and advice to the unemployed youth regarding self-Employment schemes, small-scale businesses and training details. The portal provides a comprehensive source of information covering all applicable schemes, businesses with their processes and details of documents, NOCs, agencies involved with complete contact details\textsuperscript{85}.

The portal can be accessed from service Delivery Points in rural as well as urban areas. It is simple, easy to use, graphical user interfaces in the local language to serve semi-literate and even illiterate people. There is interactive guidance as a user navigates through the pages making them simple and quick in use. The graphical user interface of the portal is touch screen enabled to facilitate the viewers to access it through kiosks.

**SARITA (e-Registration)**

\textsuperscript{84} [http://www.webel-india.com](http://www.webel-india.com)

\textsuperscript{85} [www.maharojgar.gov.in](http://www.maharojgar.gov.in)
The Department of Registration & Stamps looks after registration of documents, preservation of documents, and recovery of stamp duty. Registration is the biggest activity. It is a small department with only about 3000 staff, with very high citizen interface of 7-8 million per year. In order to bring more efficiency, transparency & effectiveness in registration process, department on Build-Operate-Transfer basis started ‘Computerization of Registration’ project called SARITA in 2002. The Project became operational on 9-7-2011. The registration of a document consists of clerical activities like data entry, capturing photos of parties on document etc. and scrutiny of document. More sensitive part of registration process i.e. scrutiny of document remained with the Sub-Registrar whereas all clerical work was outsourced. Current version of software called as iSARITA is a web-based application accessible in private network of Department.

There is registration of 67 different types of documents as mandated by the Government. There is comprehensive software simultaneously deployed at 360 sites networked. It has reduced the average time of registration to 30 minutes. The thumb impressions and photographs of parties (including identifiers) are also taken through computerization during registration. For iSARITA login and registration, the biometric authentication of Sub-Registrar’s thumb impression is being carried out. The citizens have also been given facility to do their own data entry. This project is perfect example of how efficiency and transparency can be brought in government system using PPP model. The success of this project has been widely recognized and the project has attracted attention of many other states.

**Gujarat**

**Gujarat State Data Centre**

The Government of Gujarat has set up Gujarat State Data Center (GSDC) in the capital Gandhinagar of the state. Gujarat State Data Centre acts as a mediator and convergence point between open unsecured public domain and sensitive government environment. GSDC provide

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87 [http://igrmaharashtra.gov.in](http://igrmaharashtra.gov.in)
88 [http://www.indg.in/](http://www.indg.in/)
89 [http://igrmaharashtra.gov.in/](http://igrmaharashtra.gov.in/)
functions such as Central Repository of the State, Secure Data Storage, Online Delivery of Citizen Information/Services Portal, State Intranet Portal, Disaster Recovery, Remote Management and Service Integration and more alike. It also provide better operation & management control and minimizes overall cost of Data Management, IT Resource Management, Deployment and other costs. GSDC is the key-supporting element of e-Government initiatives, with greater reliability, availability and serviceability. It enables departments to host their services or applications on a common infrastructure with efficient management and also allows optimum resource utilization. In order to provide decentralized delivery of services to the citizens in the state, The Government of Gujarat has also set up four Mini Data Centres at "Mahesana", "Rajkot", "Surat" and "Vadodara".90.

**Ahmedabad Municipal Corporation**

The AMC provides civic services to nearly 4 million citizens. There are 24 civic centres of AMC with service counters which varies between 3 and 10 depending on it activity level, primarily delivering services such as: computation and payment of property tax online through a simple formula, issuing of birth and death certificates and also making it printed and laminated at the price of Rs 25, issuing and renewal of shop and establishment license, hawkers license, hotel and restaurant license, payment of motorcycle tax, processing of application made under the Right to Information (RTI) Act, filling tracking and Redressal of complaints pertaining to civic amenities through the website. The citizen is served on first come first served to avail the services provided by the civic centre. Each centre is taken care of by a system manager and a system operator employed by AMC.91.

**Mahitishakti**

Like a single window Mahitishakti operates through which the citizens can access information related to all aspects of the government functioning various beneficial schemes and services

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ranging from obtaining ration cards to getting sanction for old age pension. Anyone who wishes to avail the benefit has to go to his/her nearest designated STD/ISD kiosk submit the necessary documents to the information kiosk owner and fill in the required form online. For online submission of application, the Information kiosk owner charges ₹10 for the application form and ₹20 for submission.

**CICP (Computerized Interstate Check Post)**

Computerized inter-state check post, Gujarat is a prominent inter-state check posts system to help the government and the officials to check all the heavy vehicles passing through the state and control the transport of commodities to the specified standards to avoid loss to the life and property. An average of 7000 number of vehicles pass through these check posts everyday and 70 per cent of vehicles passing through the check post are over weighed or over loaded more than their permissible limits. The services offered basically checks the overweighed vehicles at the check posts by weighing of vehicles with electronic weigh bridge to show the exact weight of the vehicles. A video camera captures the weight of the vehicle is displayed on an Electronic Display Board which helps to know the exact overload status of the vehicle. This system has produced three fold increases in tax collection over 2 years.

**Punjab**

**SUWIDHA [Single User-friendly Window Disposal and Help-line for Applicants]** The Government of Punjab decided to implement this project in all districts of Punjab along with SUWIDHA Back-end Services (SUBS) of the Deputy Commissioner Branches in December 2004. SUWIDHA has been conceived to help citizen by capturing the input at a single point, depending upon the form of service and accepting cash at the counter itself.

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92 [www.mahitishakti.net](http://www.mahitishakti.net)
95 [http://www.iimahd.ernet.in](http://www.iimahd.ernet.in)
All submissions of applications or requests for availing services at a single counter commits date for the delivery of service. There is an automatic stamping of the delivery date on computer-generated receipt, based on the type of service requested which are monitored by Deputy Commissioner. The applicant can check online for the completeness of the application forms so as to avoid further visits. The checklist of attachments required with the applications is displayed and verified on the counter itself, which leads to no rejection of the application due to incompleteness. The facility of on the spot capturing of photo, wherever required saves time and cost to the citizens. SUWIDHA makes you aware about the information on schemes and procedures and their related application forms. There is also the provision for on the spot delivery of services where the verification can be ensured based on the data available in district databases (affidavit attestation). There is proper linkage with backend applications in the various branches.\(^6\)

There are 17 districts performing the above functions in order to serve its citizens through online system. Punjab has established many e-governance initiatives such as: District Information System (DIS) containing village and database. The state has established Courts Information System (COURTIS), which provide information about court proceedings and cases. For providing the online services to the people of district and villages in the state a new project has started, which is known as Computerized Rural Information System (CRISP)\textsuperscript{97}. These include issuance of certificates such as death or birth, caste, rural area etc; licenses such as arms license, permission for conferences or rallies etc.

\textit{eDistrict}

E-District integrates the seamless delivery of citizen services by district administration through automation of workflow with backend computerization and recording of data digitally across various participating departments. This initiative provides for seamless integration of various offices situated at district, Sub-division, Tehsil and Block level etc. for delivering services to the citizens through a common delivery interface. SUWIDHA Centers and Gram SUWIDHA Kendras are the primary front end channels.

e-District project in Punjab has been implemented in two pilot districts of Kapurthala & SBS Nagar. The Project directs towards the electronic delivery of identified high volume citizen centric services at district and sub district level, with a view to improve the efficiency and effectiveness of the service delivery system. The project edges and utilizes the four pillars of e-infrastructure - State Data Centers (SDCs), State Wide Area Network (SWANs), State Service Delivery Gateways (SSDGs) and Gram SUWIDHA Kendras (CSC Scheme), leading to deliver public services electronically to the citizens at their door steps\textsuperscript{98}.

\textit{PAWAN (Punjab State Wide Area Network)}

PAWAN is a connecting fiber network for data, voice and video communications throughout the State of Punjab with dedicated state owned fiber Network infrastructure to connect Government numerous offices at State, District & block levels. It is designed to provide the overall Governance information and communication requirements of the State of Punjab. It has resolute

\textsuperscript{97} \url{http://punjab.nic.in}

\textsuperscript{98} \url{edistrict.punjabgovt.gov.in}
a Closed User Group (CUG) network among State's Civil Secretariat, Departments, Corporations, Boards, District offices and Block offices and e-mail service for official use of employees of the State Government. The HCL Info system plays the role of operator and Bharat Sanchar Nigam Limited (BSNL) Punjab plays the role of bandwidth donor for PAWAN.

**PRISM**

PRISM is implemented in almost 153 SRO offices in Punjab which computerizes all major activities of Sub-Registrar office and covers deeds of Sale, Mortgage, Will, Adoption, SPA, GPA, Exchange, Pattanama/Lease, Tatima, Cancellation of SPA/GPA/Will total 27 deeds etc. which include token issuance, online capturing, storage, printing of photographs on stamp paper, valuation of property, scanning of deed documents online/offline, on the spot registration, issuance of mutation notice as Parchayadast, finalization & pendency check of deeds by SRO all through the single window service system.

**Rajasthan**

**Gramdoot**

Askh Opti Fibre Cable is India’s second largest manufacturer of Opti Fibre Cable (OFC). It was set up in 1986, a rural convergence beta site at village Dabri Rampura in Rajasthan. 'Gramdoot' aims to bridge the digital divide between rural India and rest of the world by providing e-Governance and rural convergence through broadband services on OFC, connecting 407 Gram Panchayats in Jaipur district in Rajasthan. Gramdoot is a pilot kiosk manned by a trained local villager and equipped with the requisite hardware, software and fiber connectivity. It is backed up with optical network architecture showcasing various applications having potential use in a wide range of applications demonstrated including e-governance, telephony, high-speed Internet access (data), cable TV and fax & hotline among others, through Optic fiber cable.

Gramdoot also provide a large number of other extended services in due course, including Registration of documents, valuation of immovable properties, collection of revenue, stamp duty, transfer duty and registration fee, payment of all utilities, bills and taxes, such as electricity,

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99 [www.dgrpunjab.gov.in](http://www.dgrpunjab.gov.in)
100 [www.nic.in](http://www.nic.in)
telephone bills etc, Registration of new vehicles, transfer of ownership and issue/renewal of
driving license, information for immunization and clinical care, maternity services and e-
medicine among others.\(^{102}\)

It is one more effort at making rural India a part of the larger world through technology. With
3,000 kms of optic fibres laid down to connect 400 villages near Jaipur in Rajasthan, the
gramdoot (village messenger) project of the Rajasthan government and Aksh Broadband Ltd
(ABL) aims not only to provide villagers with Internet access and telecom facilities, it also hope
to launch IT education in villages in the state. All these services are being launched in partnership
with other companies.\(^{103}\)

**RajNidhi**

RajNidhi Information Kiosks has been developed and designed to enable the citizens to have
access to number of services which include information relating investment opportunities
tourism, health and information regarding procedure for obtaining ration cards, license, birth,
death certificate etc. The kiosk provides an opportunity for the citizens to communicate
complaints and suggestions to the Chief Minister and senior officers directly.\(^{104}\)

**e-Mitra**

The project is operational since 2005. Originally, under the name of Lok Mitra, piloted in Jaipur
in 2002 and jan-mitra piloted in Jhalawar in 2002 emerged as ‘e-Mitra’. E-Mitra provides access
to government transactions through the internet and e-koisk. It is equipped with five e-counters
connected to a central server. Any citizen can avail multiple services of different departments at
these counters.\(^{105}\) E-Mitra is an ambitious e-governance initiative of Government of Rajasthan
(GoR) which is implemented in all 33 Districts of the state using Public-Private Partnership
(PPP) model for convenience and transparency to citizens in availing various services of the
Government and Private Sectors under a single roof at their door steps using an e-platform.

The services are delivered via counters known as CSC (Common Service Center) kiosks in Rural
Areas and e-Mitra centres in urban areas and also online via www.emitra.gov.in. Hence, these
counters provide services related to various departments in an integrated and easily accessible

\(^{102}\) www.voicendata.com
\(^{103}\) The Financial Express Newspaper, New Delhi July 18, 2003
\(^{104}\) http://www.ap-it.com/egovernancego23governance.pdf
\(^{105}\) http://www.lokmitrarajasthan.gov.in
manner to people residing in rural as well as urban areas without any need for running around in government offices. Initially it was functioning through a Client Server based Application Software developed by Department of IT&C. Recently, a new generic module has been added to e-Mitra portal which allows end to end application and delivery of "Digitally Signed Certificates" such as Bonafide, Caste, Income, Solvency etc.\(^{106}\)

**Odisha**

**SAMS (Student academic management system)**

It is an integrated academic management system. The system was launched on October 12, 2008. It is a comprehensive tool for students / parents, administrators at colleges and government as well to overcome the challenges in the process of college admissions and post-admission processes. It ensures single window system for admission through e-Admission process by making the admission process economical for the applicants/parents. It reduces the work load of colleges by developing several modules of administration using the database of admission process and thereby improves services to the students.\(^ {107}\)

**e-Municipality**

A State Government initiative is envisaged to be implemented in 45 Urban Local Bodies covering 3 Municipal Corporations, 34 Municipalities and 8 District Headquarter Notified Area Councils (NACs) in the first phase. Being the prime e-Governance reform program of the State Government, it covers implementation of the following 11 modules, thus incorporating many of the reform items of JNNURM and recommendations of the 13th Finance Commission: Birth & Death Registration, Property Tax/ Holding Tax, Trade License, Building Plan Approval & Fees Collection, Grievance Redressal, Welfare Schemes Management - on line, Solid Waste Management, Accounts and Audit, Connection & Charges, Municipal Management Information System all available online, just on a click.\(^ {108}\)

E-Municipality aims to develop an integrated system to deliver citizen centric service at Urban Local Bodies at anytime, anywhere basis. The objectives of the Project are to provide single window services to citizens on anytime and anywhere, to develop a single and integrated view of

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\(^{106}\) [www.emitra.gov.in](http://www.emitra.gov.in)

\(^{107}\) Aditya Mohapatra, “Student Academic Management System Odisha”, Compendium of selected e-governance Initiatives in India, 2013

ULB information system across all ULBs in the state, to provide timely & reliable management information relating to municipal administration for effective decision making, to adopt a standards-based approach to enable integration with other related applications, to increase the efficiency and revenue of ULBS by providing a best system and best practices, to Compliance of JNNURM, 13th Finance Commission recommendations and other reform norms.¹⁰⁹

**Haryana**

**NLRMP (National Land Records Modernization Program) – Integration of Property Registrations, Land Records and Cadastral Maps System**

- **HARIS (Haryana Registration Information Systems)** facilitates the registration of Properties and Land. It provides services like Collector Rates of Property, Stamp Duty Calculations, Deeds Writing – Standard deed templates, Buyers/Sellers Photographs Capturing, Registration of Property Deeds, Issuance of Copy of Registered Deed, Issuance of Mutation Notice, Information on Registered Deeds. HARIS is being implemented at all 74 tehsils and 44 sub-tehsils covering 100 per cent locations.

- **HALRIS (Haryana Land Records Information System)** is a complete Integrated Workflow Automation system of Land Record components which provides a single Window Interface for Deed Writing, Registration, all kind of Mutations, Jamabandi and copy of RoR (Record-of-Right). HALRIS also provides services like Nakal of RoR (Parat Patwar), Nakal of RoR (Parat Sarkar) e-Record Room, Copy of Khasra Girdawari, Verification of Nakal of RoR, Web based RoR Query Service, Copy of Mutation Order etc. Web Interface for publishing of Jamabandi data on Web has also been implemented, which pushes the RoR data to NIC-HDC and Web also enables access to Records of Right which is made available on the website [http://jamabandi.nic.in](http://jamabandi.nic.in) which contains RoR data of around 6000 villages.¹¹⁰

- **Digitization of Mussavies / Cadastral Maps** The Cadastral Maps of Ambala & Sirsa Tehsils were digitalized through HARSAC Hisar. Bhu-Naksha Software deals with

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¹¹⁰ www.haryana.gov.in
spatial data (digitized Mussavies / Cadastral Maps) for updating the maps of land parcels and incorporation of Mutations & Tatima etc; got customized as per Haryana requirements. The pilot was launched under NLRMP at Ambala on 20th January, 2011.\footnote{Haryana.nic.in accessed on 28 September, 2014}

**OTIS (Online treasuries Information System)**

The State has 22 district level treasuries and 84 sub-treasuries across it. A bank branch is associated with each treasury which coordinates with the treasury related work. The project has been sustaining since last 7 years. The services the project provides are On-line Budget Allocation Service, Electronic Payments System – EPS Service, e-Salary Centralized Salary Service, On-line Payment OF Taxes & Dues - Cyber Treasury Service, Pensioners Pension Service monthly, GPF Deductions – Ledger Service, Annual GPF Statements Service, and Grievances Redressal on GPF & Pensions\footnote{www.haryana.nic.in}.

Web enabled OBAMA (Online Budget Allocation, Monitoring & Analysis) System implemented by 6500+ Drawing and Disbursing Officers of around 105 state government department throughout the state. OTIS is also integrated with e-Salary, e-Pensions and banks for electronic payments\footnote{informatics.nic.in}.

**e-District**

e-District is a state MMP under NeGP and DeitY, Government of India funded by Haryana. Rohtak is chosen as a pilot e-District MMP. NIC-HrSC is the technology partner for development of application software, its enhancements, and technology support for implementation in Rohtak and thereafter, state wide roll-out of the project. The portal http://edisha.gov.in is hosted at HSDC (Haryana State Data Centre). The Haryana’s e-District application software is a state wide roll-out. The main attraction of this project is creation of Citizen Identity Data Repository (CIDR) as per the UIDAI guidelines and can be populated from Aadhaar Database. On line Status of the service is available for the citizen at the portal. A separate dashboard has been created for top level & middle officers to help them in taking
decisions & monitoring. Daily transactional data is also reported to National e-Services Dashboard through web service\textsuperscript{114}.

\textit{e-Disha (Ekal Seva Kendra- Citizen Centric e-Governance)}

It is an initiative of Haryana Government is an effort towards creating a Citizen Services Network, a way to take the governance towards its citizens in order to provide citizens the access to information about government services and processes, knowledge about the local best practices and contents, and delivery of government services at their doorstep. The State is implementing with CSC (Common Service Center) under GOI Scheme for establishing and operating 1159 rural CSCs and 104 urban CSCs (including 49 Showcase CSCs) under the state known as “e-DISHA Ekal Seva Kendras” for the dissemination of various services to the citizens under one roof. The rollout of CSCs in Haryana in rural areas have been achieved 100% while in urban/showcase CSCs it is more than 67%\textsuperscript{115}.

\textit{Transport (Vahan, Sarathi and National Permits) Regulatory Mission Mode Project}

VAHAN is the Vehicles Registration system and SARATHI is the Driving License Issuance System. The number of National Permits of transport vehicles is issued through national permit Web Portal from Haryana. Vahan and Sarathi are operational at all 76 Authorities. National Permits issued from Haryana is largest in number throughout India. The services being delivered are Issuance of Learner’s Permanent, Duplicate Driving License, Renewal & Addition of vehicle in Driving License, Issuance of Conductor’s License, New Vehicle Registration, Transfer of Vehicle, Issuance of Duplicate RC, Hypothecation of Vehicle - PA Entry/Cancellation, Change of Address in RC, and Issuance of NOC for RC.Rollout of Vahan & Sarathi has been completed in all the RTO’s in 32 states\textsuperscript{116}. With the issuance of permits for Commercial Vehicles launched e-Ticketing web portal on 17th September 2010 providing facility (www.hartrans.gov.in /online/index.asp) for on-line reservation of tickets of Volvo buses in Haryana Roadways\textsuperscript{117}.

\textit{HaPPIS (Haryana Pensions Processing & Information System)}

\textsuperscript{114} www.nic.in  
\textsuperscript{115} www.csi-sigegov.org/egovernance\_pdf/  
\textsuperscript{116} http://nisg.org/files/documents/UP1399978495.pdf  
\textsuperscript{117} www.hartrans.gov.in
System implemented for around 20.60 lacs beneficiaries under 9 schemes of Social Justice and Empowerment Informatics Project. The system is supported by Planning Commission of India and is linked with (EBT) Electronic Benefits Transfer with various banks, facilitating Financial Inclusion. Under this there is allowance of pensions to Old Age people, Widows, Handicapped, Financial Aid to Destitute Children, Eunuchs, Non School going disabled, Dwarfs, and Kashmiri Migrants.

**SMART Cards**

It is a card made for multi functional purpose on the basis of citizens ID. It enables citizens to interact with services, to make payments and also acts as a Voter ID. It also helps to obtain ration card, passport, driving license and vehicle registrations. It also helps the pensioners under HaPPIS in order to avail the pensions of the system.

**Jansahayak**

The State government, decided to implement a scheme for 15 sets for provision 36 identified services to the citizens in a time bound and hassle free manner. Jansahayak is a workflow based effective monitoring mechanism for effective delivery of services to the citizen through electronics mode. This service helps in the standardization of workflow processes, forms and fee structure, and delivery of services to its citizens in an easy and convenient manner.

Jansahayak provides the following facilities to Citizens:

1. Information, Education & Communication, including Work Flow Process in Hindi/English.
2. Online availability of soft copy of Application form.
3. Computer assisted filling of forms and printed hardcopy with check list of application.
4. Acknowledgement of the Receipts application from service delivery authority.
5. Filing of complaints and grievances.
6. Information regarding status of service request/grievance.

**e-Tourism**

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118 haryana.gov.in  
119 Navjyot Kaur, “E-Governance in Haryana: A Case Study of Punchkula District”, Mphil dissertation, Department of Public Administration, Panjab University, Chandigarh, 2013  
120 http://informatics.nic.in
Portal of Haryana Tourism Corporation has integrated solution for tourist, Resorts counters management of HTC and Tourist Agents. e-Tourism was inaugurated on 4th August, 2009 providing with all type of information of about Haryana along with On Line Rooms booking facility in Haryana Tourism Resorts. Corporation operates 43 tourist complexes spreading all over the state. In consonance with the rapid advances in technology, Haryana Tourism extends a facility to the customers to book rooms as per their choice using credit cards. The booking can also be cancelled online and the refund goes in the customer’s account automatically. Haryana Tourism has made efforts to reach out to people with its user-friendly development in order to serve its citizens in a advanced away121.

**Himachal Pradesh**

**HIMSWAN (Himachal State Wide Area Network)**

HIMSWAN has been established to provide connectivity not only to Government Offices across the State but also to the Citizens, over a period of time, rapid narrowing of digital divide and promoting all pervasive use of IT in all matters of the State. State Wide Area Networks (SWAN) is to create a secure Close User Group (CUG) Government Network delivering Government to Government (G2G) and Government to Citizen (G2C) services122.

**Common Services Centres or LokMitra Kendra (CSCs)**

In Himachal Pradesh the LokMitra Kendra (Common Service Centres) scheme proposes to establish 3366 e-Governance centres at Panchayat level in the state. As approved by the Government of India, the scheme envisions CSCs as the front-end delivery points for Government, private and social sector services to rural citizens of India, in an integrated manner. The State Government has selected two Service Center Agencies (SCAs) i.e. Zoom Developers Pvt. Ltd. for Kangra division and Consortium of Tera Software Ltd. and GNG Trading Co. Pvt. Ltd. in order to setup centres for Shimla and Mandi division after a tender process. These companies are called as Service Centre Agencies (SCAs).

**E-Samadhan**

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121 [http://www.nic.in/](http://www.nic.in/)
The submission of application as (grievance or demand), later on the concerned office of the department may change the application type to grievance or demand through e-Samadhan of the citizens. Under Himbhoomi project major process reforms are carried out in the Revenue sector software (HimBhoomi & HIMRIS) by introducing option for instant mutation at the time of registration. Distribution of Jamabandi and Shajra Nasb through LokMitra Citizen Service Centres at Panchayat level carried out. Entry of court cases and complete integration of land records with registration done. Another common citizen centre known as eLok Parman Patra has been implemented at Sub-division and Tehsils of the State for issuance/ re-issuance of 14 various types of certificates to citizens through CSCs.

**Sugam**
In 2007 been made operational by the HP Department of IT The Citizen Service Center, named Sugam, in the Collectorate is one of its kind in the country. The center has 15 counters for delivery of service to the citizens and a reception for guidance. A Token dispenser machine has been installed to maintain a proper queue system and availability of service on the first come-first served basis. The center has two big display boards to display the token number to be served along with its counter number. A Touch Screen has been installed to provide various informative services to the citizens. The software has been developed by NIC Himachal for offering these citizen services. The services it offers its citizens are as follow:

- Issue and Renewal of Various Types of Driving Licenses
- Issue & renewal of vehicle registration.
- Acceptance of Passport Application
- Property Registration
- ROR Issuance
- Touch Screen Kiosk
- Issuance of Various Certificates

**eTourism**
A web-portal covering all aspects related to the Government of HP has been set up by NIC which lays special emphasis on the E-Governance and G2C services aspect. This web portal
carries lot of static and dynamic information and also links the government departments, corporations, boards, universities, agencies, autonomous and statutory bodies and various districts of Himachal Pradesh. This web portal is updated daily and contains number of dynamic web pages from entering and searching information to various services like eService Book Personnel, MISeChallan-Payments to Government, eDistrict-G2C Services, Excise & Taxation-eServices, View Land Records & Circle Rates, Online Services for Voters-NVSP, Online Learner & Driving Licences, Mock Learner Driving Licence TestToken & Special Road Taxes, MC Shimla-Pay Property Tax & Water Bills, Employment Job Portal, and OFRIS-Online Factory RegistrationJail Varta-Prisoner Relative VC, eSalary Salary slip, ePension-Pensioners Helpline, LokPraman Patra-Citizen Certificates, ePehchan-ID Cards Verification, PAN Card Application & Status Online, Passport Application & Status Online, Protected Area Permit for ForeignersVigilance Complaints, Economics and Statistics Rates. These eservices are further described in detail for the citizens to avail the services online.

Delhi

Municipal Corporation of Delhi

The Municipal Corporation of Delhi is among the largest municipal bodies in the world providing civic services to about 14 million citizens in the capital city. The Amendment in the Act brought about fundamental changes in composition, functions, governance and administration of the Corporation. MCD is the biggest Corporation of India, covering most of 1470 sq.kms area of National Capital. Presently, MCD dynamic Website www.mcdonline.gov.in has been launched since 12-2-2003. There are 13 Citizen Service Bureaus in 12 MCD Zone and one at MCD Headquarter at Town Hall are in operation. They provide the services like Registration & issue of Birth & Death Certificates, Issue/Renewal/Amendment of all types of licenses such as General Trade licenses, Factory licenses, General Health Trade licenses, Tehbazari licenses, Rickshaw Puller licenses etc, collection of property taxes, booking of Parks/Community Centers for private function, receiving payment through Internet payment gateway. There are 350 Hospitals (Private

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123 http://himachal.gov.in/
& Government hospitals) have been registered for online registration of Birth & Death and records have been digitalized, Factory licenses records have been digitized for the citizens\textsuperscript{125}.

\textbf{Revenue Management System - Delhi Jal Board}

The Government of Delhi reconstituted the Delhi Water Supply and Sewerage Disposal undertaking into the Delhi Jal Board (DJB), for effective management of water supply and sewerage in the National Capital Territory. It is responsible for water resource management, monitoring the pollution of water and the treatment and disposal facilities in the Municipal Corporation of Delhi (MCD) area. Presently DJB serves 20 lakh consumers in the Delhi region. The Department of Revenue at DJB is responsible to ensure that revenue is collected for all the water generated and supplied by DJB. It also helps with Grievance Redressal (for grievances related to Revenue Department). The DJB offers online services like Know New KNO, View/Print Latest Bill, View Balance & Last Receipt, Bill Pay Options, Pay Online, Apply for New Connection, Apply for Mutation, Track Application Status, Download Centre/Circulars & Notices, Mobile App - DJB mSeva, and Rebate Details\textsuperscript{126}. It has also introduced 24x7 online complaint services.

\textbf{Mission Convergence - Samajik Suvidha Sangam}

In 2011 Samajik Suvidha Sangam was established under the Department of Administrative Reforms-GNCTD to converge various welfare entitlement schemes and services with the objective of making entitlements reach the poor through a single window system. There are 45 schemes under 9 various departments. Samajik Suvidha Sangam is with the vision to be the interface between departments, DCs office and Nodal Agencies and NGOs. The Mission enhances the visibility of schemes to all targeted communities; enhance the control/influence of the community/service recipient over the welfare schemes; strengthening the Organizations (GRC/NGOs/Government line Dept.) and its processes related to prompt service delivery; and incentives and reinforce appropriate mechanisms for receiving/providing services. The Delhi Government bought in the right balance between various government departments, Community Based Organizations and the people by ushering major reforms in governance for empowerment and uplift of the vulnerable population of Delhi\textsuperscript{127}.

\textsuperscript{125} www.mcdonline.gov.in  
\textsuperscript{126} www.delhijalboard.nic.in  
\textsuperscript{127} http://nisg.org/files/documents/UP14 03854889.pdf
**Electronic Services Level Agreement (e-SLA)**

Electronic Services Level Agreement was implemented in 2011 in order to monitor the time bound delivery of services. Currently there are 116 services of 24 departments creating various tools for making service delivery procedures citizens friendly. The list of various services covered under the system such as water connection, birth and death certificate, electricity connection, driving licenses, registration of vehicles, income certificate, ration card and other welfare schemes are available on www.delhi.gov.in. Through e-SLA citizens can access web based application by logging in for tracking their application to several departments at an single point.  

**e-District**

The e-district project is aimed at rooting out touts and middlemen and ending the chaos at the district offices. The revenue department of Delhi government is aiming at a mid-September launch for the e-district project, beginning with north district, under which marriage registration will be the first service to go online. The district offices will have e-district kiosks in order to serve all the citizens especially for those who do not have access to the internet. Besides marriage registration, the other services of revenue department proposed to be brought under the e-district portal include certificates for birth, death, SC STC and OBC, nationality, domicile, handicap, income, lal dora and surviving member. Ration cards issued by the food and civil supplies department will be next in line. The social welfare department’s applications for pension for the old, widows and handicapped will also be brought to this portal.

**Uttar Pradesh**

*Jan Seva Kendra*

The Jan Seva Kendra offers a multitude of services ranging in the areas of eGovernment, education, health, agriculture, commercial, retail, etc; providing e-governance services within easy reach and thereby saving consumer’s costs and time on distant and repeated travel. Presently, 15,800 Common Service Centres are functioning with different kind of functions. It provides information on available government developmental program, beneficiary criteria and

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129 http://ibnlive.in.com
present beneficiary list to bring in transparency and efficiency in the program and an opportunity for development of the marginalized sections of the community. It also provides with the information and opportunities for income enhancement/generation. The citizens are being given the platform for e-communication. The citizens can avail government services (G2C) such as Land records, Registration of vehicles, Issue of certificates/ Government schemes, Employment exchange, Ration cards, Electoral services, Pension schemes, Road transport, Public grievance Utility/Telephone Bills (Government undertakings)\(^\text{130}\).

**Lokvani Kendra**

At present there are 3300 Lokvani Kendras, giving its citizens an opportunity to interact with the government without actually visit any government office. Services like Land Records, Tender Forms, Arms license application status, GPF accounts of basic education teachers are available online now. To ensure transparency, details of developmental works, ration allotment to fair price shop dealers, money sent to Gram Sabhas etc. are made available to people. The land records have been computerized and available on line at Lokvani website. There are also services like Online Registration of Death/Births, Certificates for SC/STs, Domicile etc being offered through Single Window service. More than 50 other districts of UP have been now using Lokvani based citizen services. The e-District project is successfully running in six districts of Uttar Pradesh - Ghaziabad, Gautam buddh Nagar, Sultanpur, Raebareilly, Sitapur and Gorakhpur\(^\text{131}\).

**e-Suvidha Kendra**

e-Suvidha provides a one stop interface to citizen to interact with government departments through a single window clearances system. All the citizen centers operate from 8 AM to 8 PM on all working days including Sundays and holidays. Citizens can avail any service from any of the e-Suvidha Service Centers across any counter. Presently there are 100 E-suvidha kendras offering various services Electricity Bill Payment Service, Payment of Water Tax for Jal

\(^{130}\) [http://infotech.up.nic.in/](http://infotech.up.nic.in/)

\(^{131}\) [lucknow.nic.in](http://lucknow.nic.in/)
Sansthan, Payment of House Tax for Nagar Nigam, Payment of House Installments for LDA, Railway Ticketing Service, BSNL Bill Payments/Cellone Services, at all the locations\textsuperscript{132}.

\textbf{Madhya Pradesh}

\textit{Nagrik}

The project Nagrik has been framed with an integrated community information network which connects all the user departments of Municipal Corporation and decentralizes zonal offices for the effective revenue collection, improved citizen services and better office administration. There are various modules to cater the needs of various departments like Municipal properties on rent and lease, house and allied taxes, birth and death registration, Municipal trade license, accounts and budgeting, salary and personnel record, Grievance Redressal system, website preparation etc. Hence, through this project any information of the departments is easily available for the citizens and departments\textsuperscript{133}.

\textit{Samadhan Ek Din Me - Jan Suvidha Kendra}

Samadhan Ek Din Mein- Jan Suvidha Kendra (One Day Governance- Public Facility Centre) is a very innovative and pro-people project which seeks to provide around 14 certificates sought by the applicant on the same day itself. The public has to apply from 11:00 am to 1:30 pm, after which the certificates will be issued before the end of the day. In case it is rejected or getting delayed, the reason thereof is furnished to the applicants. The departmental activities are reformed for proper implementation of the project.

The tribal district Mandla has the unique privilege of being the first to have setup the Samadhan Kendras at tehsil level functioning on the same line catering to the various needs of tribal people. NIC Mandla has designed software in accordance with the district requirements and implemented all the 4 Jan Suvidha Kendras in it. One Kendra is situated at Collectorate premises and other 3 at the Tehsil level. Thus Mandla become the first district to implement the program in Tehsil level and third in implementing it at district level. Each Tehsil center is visited every week for ensuring its proper functioning. Database backup is taken and reports are generated.

\begin{flushleft}
\textsuperscript{132} http://www.esuvidha.goup.in/
\textsuperscript{133} V K Jain, “Concepts and applications of E-Governance: Illustrations through some case studies”, Journal of the Eighth National conference on e-Governance, 3-5 February, 2005
\end{flushleft}
frequently. Daily and weekly report is given to the collector regarding the summary of operations like number of applicants, number of certificates issued, fees collected and other details.

The Vision is to make the Government operations transparent, error free and quick so that public need not to wait for long time as it is used to be in earlier days. The objective of the project is to bring all Government services under a single roof and make a system so simple that public can conveniently get services without much hassle. The following services are being delivered at Jan Suvidha Kendras: Domicile certificate, Temporary Caste Certificate, Marriage Registration Certificate, Birth-Death Certificate, Renewal certificate of small establishments, BPL certificate, No-Dues certificates, Attested copy of Voter list, Duplicate Ration card, Learning Driving License, Attested copy of Electoral list.

**The Present Scenario**

The government is currently giving shape to the think tank but has already decided on some of its functions, one of which will be to oversee the implementation of the PM’s innovations such as Digital India, Skill India and Swacch Bharat. A new email policy for government services has been drafted by the National Informatics Centre (NIC) which has been mandatory for government work. The Department of Electronics and Information Technology, has National Information Centre (NIC) had provided official email IDs to 3.5 million government employees so far, only 700,000 were currently used.

*Aadhaar enabled Biometric Attendance System (BAS)*

The program is initially launched in central government offices in Delhi. The proposed system enables an employee to register attendance in an authentic online manner by doing one to one match with the bio-metric stored in the UIDAI data base against the employee’s Aadhaar number. The attendance portal is managed by NIC data center. Aadhaar Enabled Biometric Attendance System is first big step of government towards e-governance. The citizen of country can visit the portal and check the availability of government employees at any time in a day for particular job or to visit the office for work purpose. Biometric attendance system service will

\[134 \text{ http://mandla.nic.in} \]
\[135 \text{ Hindustan times, 15th September 2014} \]
ensure full transparency and increase work efficiency of the government employees which automatically lead India towards a better future\textsuperscript{136}.

\textit{Digital Locker}

The present government is focusing on the concept of a digital locker- an online repository for all certificates and documents issued to the citizens of the country. While applying for a service, the concerned department will verify these documents, stored on a government cloud, without the trouble of record-keeping or getting photo copies, attestations and affidavits. The digital India program presently, has launched the national digital locker to minimize the usage of physical documents and encourage documents to be uploaded online, making them easy to share and access across multiple agencies. Presently, the digital locker is proving CBSE class 12\textsuperscript{th} mark sheets to the students\textsuperscript{137}.

\textit{Jeevan Pramaan}

It is a digital life certificate for pensioner’s scheme under the government of India known as Jeevan Pramaan certificate. Jeevan Pramaan certificate is produced for individual pensioner using his biometric credentials. More than one crore families in India have been classified as pensioner families, where the pension disbursed by the various government bodies forms the basis for their income and sustainability. In order to get this life certificate the individual drawing the pension is required to either personally present oneself before the Pension Disbursing Agency or have the Life Certificate issued by authority where they have served earlier and have it delivered to the disbursing agency. Jeevan Pramaan seeks to address this very problem through digitizing the whole process of securing the life certificate. The aims to streamline the process of getting this certificate and making it hassle free and much easier for the pensioners. With this initiative the pensioner’s requirement to physically present himself/herself in front of the disbursing agency or the certification authority will become a thing of the past benefiting the pensioners in a huge way and cutting down on unnecessary logistical hurdles\textsuperscript{138}.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{136} \url{www.attendance.gov.in}
\item \textsuperscript{137} \url{diliglocker.gov.in}
\item \textsuperscript{138} \url{jeevanpramaan.gov.in}
\end{itemize}
\end{footnotesize}
**Mobile Seva**

Mobile is in the reach of maximum citizen of country keeping this in view the government of India has decided to reach the common man with the help of Mobile Seva. Mobile will be used to deliver information regarding various government policies. DOT (Department of Telecom) plans to take mobile network by December 2016 to nearly 10 per cent of Indian villages that are still to be connected in order to make the DigitalIndia program more effective. Of the 6,00,000 villages in the country, about 55,000 are still awaiting mobile connectivity. Under the project of Digital India initiative, the government aims to connect every nook and corner of the country with broadband internet in order to deliver services electronically through mobile phones\(^{139}\).

**Direct Cash Transfer**

Supported by UIDAI to facilitate disbursements of Government entitlements like NREGA, Social Security pension, Handicapped Old Age Pension, etc. of any Central or State Government using Aadhaar.

**Aadhaar Enabled Payment System (AEPS)**

AEPS is a bank led model which allows online interoperable financial inclusion transaction through the Business correspondent of any bank using the Aadhaar authentication. This has helped in financial inclusion. The four Aadhaar enabled basic types of banking transactions are undertaken are Balance Enquiry, Cash Withdrawal, Cash Deposit, Aadhaar to Aadhaar Funds Transfer\(^{140}\).

**Digital India Program**

Department of Electronics and Information Technology (DeitY) with the vision of Digital India aims to transform the country into a digitally empowered society and knowledge economy. The program will be implemented in phases from the current year till 2018. The Digital India is transformational in nature of e-services which would ensure that Government services are available to citizens through electronic mode resulting in public accountability through mandated delivery of government’s services electronically; a Unique ID and e-Pramaan based on authentic data.

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\(^{139}\) The Economic Times

\(^{140}\) www.npci.org.in
and standard based interoperable and integrated government applications and data basis. The overall scope of this program is “to prepare India for a knowledge future”, “to make technology central to enabling change” and “to become an umbrella program covering many departments”\textsuperscript{141}.

\textit{MyGov citizen portal}

The present Prime Minister Shri Narendra Modi launched an online platform \textit{mygov.nic.in} in order to engage citizens in the task of “good governance” (\textit{surajya}). MyGov is a technology-driven platform which directly will provide people with the opportunity to contribute towards good governance.

\textbf{Conclusion}

Today, the world is demanding instant access to relevant information whenever and whenever needed which is resulting in power and opportunity. Developing countries are required to develop its technology in order to bring acceptance by the citizens of the country. Awareness among all the levels of society is important and they should be convinced that IT is vital for future growth of the nation. Hence, developing countries are realizing that E-governance implementation is important and will help in becoming a part of global network. The Digital India Program will interconnect and join many existing schemes which would be reconstructed and much focused and implemented in a synchronized manner. Digital India, being common brand of the programs will highlights their transformative impact. India in the 21\textsuperscript{st} Century must contend to meet the aspirations of its citizens where government and its services reaching at the doorsteps of citizens and contribute towards a long-lasting positive impact. In order to transform India into a digitally empowered society and knowledge economy Digital India consider the IT as a growth engine of new India.

\textsuperscript{141} www.mygov.in