Recognizing the increasing importance of electronics, the Government of India established the Department of Electronics in 1970. The subsequent establishment of the National Informatics Centre (NIC) in 1977 was the first major step towards e-Governance in India as it brought ‘information’ and its communication in focus. In the early 1980s, use of computers was confined to very few organizations. The advent of personal computers brought the storage, retrieval and processing capacities of computers to Government offices. By the late 1980s, a large number of government officers had computers but they were mostly used for ‘word processing’. Gradually, with the introduction of better software’s, computers were put to other uses like managing databases and processing information.

**Background**

Advances in communications technology further improved the versatility and reach of computers, and many Government departments started using ICT for a number of applications like tracking movement of papers and files, monitoring of development programmes, processing of employees’ pay rolls, generation of reports etc. The National Task Force on IT and Software Development, constituted by the Prime Minister’s office in May 1998, have envisioned India emerging as an ITSuperpower in the world by 2008. The Task Force has already submitted its report in 3 parts. Task Force has set a target of US$ 50 billion for software export from India by 2008. Domestic software industry is targeted to reach the level of US$ 30 billion by this time. A number of initiatives recommended in this report have already been implemented by the concerned ministries/departments. The Task Force has also identified Citizen-IT Interface as one of the key areas to service the information
requirements of citizens through deeper penetration of IT in society and through the extensive use of latest tools in the networked society. Information Technology applications can be used in everyday administration to make the quality of life of the citizen better, by removing hassles\(^1\).

**National e-Governance Plan (NeGP)**

During the 1980s and early 1990s, initial attempts towards e-Governance were made with a focus on networking government departments and developing in-house government applications in the areas of defence, economic monitoring, planning and the deployment of IT to manage data-intensive functions related to elections, census, tax administration etc. These applications focused on automation of internal government functions rather than on improving service delivery to citizens (Planning Commission: 1985)\(^2\).

There have been islands of e-Governance initiatives in the country at the national, state, district and even block-level. Some of them have been highly successful and are suitable for replication. A need was therefore felt for taking a holistic view of the several e-Governance initiatives implemented across the country. It was increasingly perceived that if e-Governance was to be speeded up across the various arms and levels of government a programme approach would need to be adopted, which must be guided by a common vision, strategy and approach. This would have the added advantage of enabling huge savings in costs, in terms of sharing the core and support infrastructure, enable

\(^1\)http://planningcommission.nic.in/aboutus/committee/wrkgrp/wg_egovrn.pdf, retrieved on 18-1-2013.

interoperability through standards etc, which would result in the citizen having a seamless view of Government. It was with this background, that the NeGP was formulated for implementation across the country.

Vision of NeGP

The National e-Governance Plan NeGP has been formulated by the Department of Information Technology (DIT) and Department of Administrative Reforms and Public Grievances (DAR and PG). The Union Government approved the NeGP, comprising of 27 Mission Mode Projects (MMPs) and 8 components on May 18, 2006. The NeGP aims at improving delivery of Government services to citizens and businesses with the following vision:

“Make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man” (Report of the Second Administrative Reforms Commission, 2008: 106).

The Government approved the National e-Governance Plan on May 18 2006, comprising of 27 Mission Mode Projects (MMPS) and 8 components—three Core Components, and five others.

---

Mission Mode Projects

Figure 3 depicts the 27 Mission Mode Projects (MMPs) identified by the NeGP – 8 integrated projects; 8 central projects and state projects.

Figure-1: Mission Mode Projects.
Source: RadhaChauhan, 2009:94.

The ‘8’ integrated projects located at the core of the figure include:

1. **e-BIZ**: Seeks to address several issues related to approvals and permissions for businesses, reducing the points of contact between the business entities and

---

the Government agencies, standardizing required information, establishing a single-window services, and reducing the burden of compliance.

2. **National Service Delivery Gateway:** Acts as messaging middleware providing intelligent routing services from a Service Seeker to a Service Provider.

3. **Common Service Centers:** Proposes to set up to 87,419 centers for providing common services in 17 States.

4. **e-Procurement:** Establishes a one-stop-shop providing all services related to government procurement.

5. **e-Office:** Provides a middleware for streamlining, aligning, optimizing and automating all internal processes across government boundaries.

6. **e-Courts:** Offers online availability of judgments and cause list, e-filing of cases and notifications through e-mails.

7. **India Portal:** Provides one-stop access to government services.

8. **Electronic Data Interchange (EDI) for Trade:** Introduces electronic filing and clearance of import and export documents, e-payment of duties or charges by Ports, Airports, Customs, etc., and electronic exchange of documents between community partners and Customs, Ports, and other government agencies.

The 8 central projects of Government of India comprise:

1. **Income Tax:** Includes 19 defined services to be provided online like e-filing of tax returns through intermediaries, online submission of forms, online
payment of taxes through selected banks, issue of refunds through Electronic Clearance System, etc.

2. **MCA21:** Offers availability of all Ministry of Company Affairs (MCA) services including filing of documents, registration of companies and public access to corporate information through a secure portal.

3. **Insurance:** Provides insurance-related services through the four public sector general insurance companies.

4. **Central Excise:** Enables filing of service tax and Excise Returns, e-Payments of custom duties, automated clearance of courier consignments, etc.

5. **National ID/UID:** Creates a central database and generates unique identifiers for residents across the country primarily for effective reach of social sector benefits.

6. **Pensions:** Tracks and handles pension settlements.

7. **Banking:** Integrates core banking solutions of various banks.

8. **Passport, Visas and Immigration:** Enables applications for new passports, renew old passports, track application status, and handle immigration formalities for all international incoming flights.

The 11 state level projects include:

1. **Agriculture:** Provides services like market prices, soil information, crop diseases and management, good practices for horticulture, sericulture, etc.

2. **Employment Exchange:** Enables to match the requirements of employers and potential employees, provides guidance to the unemployed, and facilitates online registration of vacancies by employers.
3. **Commercial Taxes:** Improves efficiency of VAT administration by enabling electronic filing of returns and clearance of refunds, online payment of taxes, etc.

4. **Land Records:** Identifies and automates 14 services like integration of textual and spatial land records data, integration of registration and mutation processes, automatic updating of land records providing conclusive title to land owners, etc;

5. **Road Transport:** Includes services like vehicle registration and driving licenses;

6. **Gram Panchayat:** Issues trade licenses, certificates, house related services, receipt of fund progress reports, individual beneficiaries of various schemes, etc.

7. **Municipalities:** Provides G2C services like issuing birth and death certificates, payment of utility bills, issuing licenses, etc.

8. **Police:** Implements Common Integrated Police Application (CIPA) and hardware in Police Stations.

9. **Property Registration:** Replaces manual systems of verification and scrutiny of documents, capturing and preserving copies of documents, and conducting searches and of maintaining back office records.

10. **Treasuries:** Involves payment of salaries to government employees, payment of expenses, etc.
11. **e-District**: Automates backend processes to enable the delivery of G2C services through Common Services Centers. In addition to the eleven projects defined, each State can add up to five state-specific projects(RadhaChauhan2009:7-9)

**e-Governance Initiatives**

As we have discussed the significance and evolution of e-Governance in India in the previous chapters, now we are going into detailed analysis of some of the popular and successful e-Governance initiatives which have been implementing in different states of India. They are:

1. e-Procurement – Andhra Pradesh
2. e-Seva - Andhra Pradesh.
3. Smart Gov – Andhra Pradesh
4. SEVAARTH – Maharashtra
5. Bhoomi – Karnataka
6. Lokvani – Uttar Pradesh
7. FRIENDS – Kerala
8. Khajane – Karnataka
9. MCA 21- Mission Mode Project in NeGP
10. e – Mitra – Rajasthan.

---

5RadhaChauhan., op.cit.,
1) e-Procurement Project in Andhra Pradesh

Prior to the introduction of an e-Procurement system in Andhra Pradesh, procurement in Government departments was done through a manual tendering process. The process consisted of a long chain of internal authorizations and scrutiny which necessitated several visits by the suppliers to government departments. The manual tender system suffered from various deficiencies, including discrimination, cartel formation, delays, lack of transparency etc. The Government of Andhra Pradesh introduced the e-Procurement project in 2003 with the following objectives:

- To reduce the time and cost of doing business for both vendors and government;
- To realize better value for money spent through increased competition and the prevention of cartel formation;
- To standardize procurement processes across government departments/agencies;
- To increase buying power through demand aggregation;
- To provide a single-stop shop for all procurements; and
- To allow equal opportunity to all vendors.

In order to achieve these objectives, the entire e-Procurement process was designed to avoid human interface i.e., supplier and buyer interaction during the pre-bidding and post-bidding stages. The system now ensures total anonymity of the participating suppliers, even to the buyers, until the bids are opened on the platform.
The e-Procurement application provides automatic bid evaluation based on the evaluation parameters given to the system. These improved processes have eliminated subjectivity in receipt and evaluation of bids and has reduced corruption to a significant extent.

**Reduction in tender cycle time:** In the pre e-Procurement era, the departments would take 90-135 days for finalization of high value tenders. The tender cycle time gradually came down to an average of 42 days over a period of one year and further reduced to 35 days at the end of the second year.

**Reduction in opportunities for corrupt practices:** The e-Procurement system allows ‘any where’ and ‘any time’ access for bidders and suppliers from the Internet. The entire e-Procurement process has been designed to eliminate the human interface i.e., supplier and department interaction during pre-bid and post-bid processes. The automatic tender evaluation mechanism inherent in the system has reduced subjectivity in tender evaluation and helped to curb opportunities for corrupt practices to a significant extent and increased the accountability of procurement officials. In terms of transparency, any supplier or citizen can get information about tenders through a search engine on the home page. A supplier participating in a tender knows the list of other participating suppliers, the documents furnished by his competitors, price quotations and the evaluation result, as soon as a stage is completed by the departments in the system.
Cost Savings: The cost savings could be visualised in the following manner:

- Supplier participation has increased from an average of 3 per tender in the conventional mode to 4.5 in the e-Procurement mode. Cartels have been eliminated and even small and medium suppliers are now able to bid, as the platform facilitates ‘anywhere anytime’ bidding. The departments have made significant cost savings by an average reduction of 20% in costs for procurement transactions done through the exchange during 2003-04 and 12% in 2004-05 due to a competitive environment.

- There is also substantial reduction in the advertisement costs in the press media, as e-Procurement tender notices were shortened to contain only basic information on the name of work, estimated costs and the URL of the e-Procurement site. There has been a 25% saving in the column space used, resulting in savings of approximately $0.56 million in a year.

2) e-Seva in Andhra Pradesh

This project is designed to provide ‘Government to Citizen’ and ‘e-Business to Citizen’ services. Originally, it was implemented in the form of the TWINS (Twin Cities Integrated Network Services) project in 1999 in the twin cities of Hyderabad and Secunderabad. The highlight of the eSeva project is that all the services are delivered online to consumers /citizens by connecting them to the respective government departments and providing online information at the point of service delivery. The network architecture is designed as an Intranet on a Wide Area Network.

The network is designed in three tiers, each tier being physically located in different places. The first tier for the client-end is located at the eSeva centres. The second tier consists of the data servers and the application servers. The third tier comprises Departmental servers as the backend in the concerned departments (Electricity, Municipality, Passport Office, Transport Department, Registration, Commercial Tax, etc). These servers keep consolidated databases. Presently, eSeva is providing ‘One-stop-shop’ for over 66 G2C and B2C services in 46 eSeva centres in the twin cities and Ranga Reddy district. Centres have also been opened in 20 other districts. The services include online payment of utility bills, issuing certificates, issuing licenses & permits, e-forms etc. Payments can be made by cash/cheque/DD/credit card/Internet.

The project has become very popular among the citizens especially for payment of utility bills. In fact, it has been asserted that the success of this project is largely based on payment of electricity bills (Subhash Bhatnagar, 2005). This project exemplifies the potential for integration of delivery of Union, State and Local Government services at one point. However, it also shows that the model based on payment of utility bills could not be rolled out in the rural hinterland.

**Benefits:**

- Support from the highest political level helps in overcoming problems in implementation.

---

• Convergence and coordination between the activities of different departments/organizations leads to better services under e-Governance.

• Long-term sustainability of e-Governance projects depends on financial viability, especially if they are to be implemented in the PPP mode.

• Front end e-services are possible without back end computerization. E-Governance projects could be broken into various components and their computerization could then be phased according to the ease of implementation.

• Government servants need to be motivated to adapt and work in an ICT environment.

3) **Smart Gov in Andhra Pradesh**

The Andhra Pradesh Secretariat comprises a number of departments. The processing of information in the Government is predominantly workflow intensive. Information moves in the form of paper files from one officer to another for seeking opinions, comments, approvals etc. SmartGov has been developed to streamline operations, enhance efficiency through workflow automation and knowledge management for implementation in the Andhra Pradesh Secretariat. The solution automates the functioning of all levels of Government entities and provides a well defined mechanism for transforming the “hard copy environment” to a “digital environment”. It enhances productivity through use of IT as a tool. SmartGov replaces the paper file with an e-file. SmartGov provides the features of creation, movement, tracking and closure of e-files, automation of repetitive tasks, decision support system through knowledge management, prioritization of work, easy access to files through
an efficient document management system and collaboration between departments. This project is being extended to more departments\textsuperscript{10}.

4) SEVAARTH in Maharashtra

Sevaarth is a centralized web based, integrated system of Personnel Information & Payroll, developed by NIC, Pune for Government of Maharashtra. It is an important component of IFMS (Integrated Finance Management System) with data with exchange with other modules of IFMS, namely Treasury NET and BEAMS (Budget Expenditure & Monitoring System).

It is the first step in the direction of achieving paperless electronic payroll system i.e., paybill generation, electronic submission, electronic audit and electronic payment to the employees. Maharashtra is a large state having 693 Controlling officers spread over 35 districts and 310 talukas 12,506 Drawing and Disbursing Officers (DDOs), out of which 5,964 DDOs are at tehsil level. The Sevaarth system has been running smoothly for quite sometime now, which is indeed a creditable achievement considering the magnitude and complexity involved.

In the Government SEVAARTH plays an important part in maintaining personnel information and payment history. SEVAARTH, which consists of components:

1) SEVA-meaning personnel and service details of employees and

2) ARTH-meaning personnel payments made to the employees,
With the increase in the number of employees over the years, the Government of Maharashtra was finding it difficult to have centralized information base of all employees, as also to generate pay bills manually after incorporating all the changes and pay employees on time. Thus a need was felt to introduce computerization to achieve both the objective. However, non-availability of connectivity to all governments offices, which are located in far flung areas of Maharashtra, posted a major problem. Therefore, a model was evolved wherein the original data was posted to a central server and an offline utility for pay bill generation was given to the user offices. It was envisaged that the updated information available offline would be transferred to the central server so that the data is updated. This experience led the Government to look at alternatives and the one which is currently in place was devised with a central server model, wherein all the offices work online.

The Goals set out for Sevaarth were:

- To have a centralized employee database which can be used to build e-Service Book and facilitate online generation of pay bills and other employee related bills.
- To build a database of various offices, government quarters and DDOs.
- To create an effective MIS for use of various departments of the government and the Accountant General.
SEVAARTH was designed with the following sub-objectives:

- It should be possible to quickly & accurately gather personnel data for all the government offices in the State.
- The prevalent system of incorporating changes manually and preparing different pay bills for different employees grouped under a scheme was to be eliminated and more effective controls were to be exercised over the expenditure.
- The system was enable each Drawing and Disbursing Officers (DDO) to prepare pay bills on time.
- Simultaneously, the system was to ensure all allowances and all deductions were made correctly and accurately.
- The system was also required to provide a statewide information system to monitor various aspects of the personnel system thereby ensuring financial discipline & correct decision-making.
- The system was designed to avoid manual labour required for preparation of monthly and other pay bills, thereby reducing the time and energy.
- Another objective was to build a credible system to capture the bank details of offices as well as employees so that the system to transfer funds electronically could be put in place.
- Finally, the system was to provide a transparent and open information system for the use of various offices, departments and other entities as well as the common citizens to know the information about various offices, etc.
• Due to more accurate information being available, better decision-making and control was to become possible at the level of the Cabinet, Ministers and each and every tier of the government.

• To provide a facility to individual employees to access the system to view their own data/profile.

• To provide a transparent tool to common citizens to monitor how much money government is spending on pay and allowances from their tax money.

• Sevaarth has already covered 11.525 (93 per cent) of the DDOs with data of nearly 5.49 lakh employees out of a total of around 7.5 lakh employees. Online pay bills is regularly being generated for around 4.42 lakh employees (Shri. Sunil Vyas, 2011:491-495).

5) Bhoomi in Karnataka: Online Delivery of Land Records

Bhoomi is a self-sustainable e-Governance project for the computerized delivery of 20 million rural land records to 6.7 million farmers through 177 Government-owned kiosks in the State of Karnataka. It was felt that rural land records are central conduits to delivering better IT-enabled services to citizens because they contain multiple data elements: ownership, tenancy, loans, nature of title, irrigation details, crops grown etc. In addition to providing the proof of title to the land, this land record is used by the farmer for a variety of purposes: from documenting crop loans and legal actions, to securing scholarships for school-children. These records were hitherto maintained manually by 9,000 village officials. Through this project,

---

computerised kiosks are currently offering farmers two critical services - procurement of land records and requests for changes to land title. About 20 million records are now being legally maintained in the digital format.

- To ensure authenticity of data management, a biometric finger authentication system has been used for the first time in an e-Governance project in India.
- To make the project self-sustaining and expandable, Bhoomi levies user charges. The need for a project such as Bhoomi was felt for the following reasons:
  a. In the traditional system, land records were not open for public scrutiny resulting in manipulation and favouritism.
  b. The process for applying for transfer of title was cumbersome, time consuming and prone to harassment.
  c. There were instances of Government land being illegally transferred in the name of influential persons.
  d. It was not possible for the administrators to procure, collate and analyse data from the manually maintained records.
  e. Land records offered a unique opportunity to make people in the rural areas aware of the benefits of e-Governance. A number of benefits were attached with successful implementation of such projects: for example, the sanction of crop loans, since banks would insist on production of land records; reducing delay in the disposal of court litigation due to non-availability of records etc.
  f. To achieve its objectives, certain IT innovations had to be carried out. These included:
g. Due to limited exposure of the officials in the use of IT and the critical nature of the data, the project relies on fingerprint biometrics for not only authentication of identity but also at each stage of any transaction relating to updation of data. This multi layered security access looks beyond the obvious danger of hacking of passwords and ensures accountability at all levels with no scope for repudiation.

h. To ensure that the officials are responsible for the decisions they take on Bhoomi, the original papers connected with the decisions are scanned. To contain frivolous litigation by people claiming that notices seeking possible objections to change of titles were not served on them, the notices are also scanned on to the system.

i. To convince a farmer of the genuineness of a computer interaction, a second computer screen facing him has been provided at the kiosk. Separate touch screen kiosks linked to the database are also available for farmers to independently verify the records in question.

j. In order to protect the data from physical threats like fire or calamities, backing up of data was done by way of online replication.

k. Bhoomi software runs on a First in First Out process.

l. During project implementation, all the officials involved were assigned well-defined roles and responsibilities, down to the grass roots level. However, in the initial stages, in spite of elaborate and detailed guidelines, these were not percolating down. This was finally achieved through State level workshops and intensive trainings for bringing about changes in the attitude among departmental staff.
Benefits:

- A well conceptualized and executed BPR is a pre-requisite for success of e-Governance projects.
- There should be end-to-end computerization.
- Large e-Governance projects, having large scale impact require total support at the political level.
- Continuity in the Project Management team helps in proper implementation of e-Governance projects.
- If benefits to citizens are real and substantial, projects become sustainable.
- A holistic approach is necessary for e-Governance. Adequate time and resources need to be devoted in conceptualization, implementation and maintenance of projects.
- Systems should have a strong back-up mechanism\textsuperscript{12}.

6) Lokvani in Uttar Pradesh

Lokvani is a public-private partnership project at Sitapur District in Uttar Pradesh which was initiated in November, 2004. Its objective is to provide a single window, self sustainable e-Governance solution with regard to handling of grievances, land record maintenance and providing a mixture of essential services. As 88 per cent of the District population resides in villages and the literacy rate is only 38

per cent, the programme had to be designed in a way which was user-friendly and within the reach of the people both geographically as well as socially. To achieve this, the programme format uses the local language, Hindi, and is spread throughout the district to a chain of 109 Lokvani Kiosk Centres. These Kiosks have been established by licensing the already existing cyber cafes\textsuperscript{13}.

The services offered by Lokvani are

- Availability of land records (\textit{khataunis}) on the internet
- Online registration, disposal and monitoring of public grievances
- Information of various Government schemes
- Online availability of prescribed Government forms
- Online status of Arms License applications
- GPF Account details of Basic Education teachers
- Details of work done under MPLAD/\textit{VidhayakNidhi}
- Details of allotment of funds to Gram Sabhas under different development schemes
- Details of allotment of food grains to \textit{Kotedars}(fair price shops)
- Other useful information of public interest.

\textsuperscript{13}\url{http://sitapur.nic.in/lokvani/rojgar/tt.htm}, retrieved on 22-3-2010.
The Lokvani Centre enters the complaint on behalf of the complainant. The user need not be literate or computer expert to lodge his / her grievance. A copy of the complaint is given to the complainant along with the complaint number (like the PNR No. of the railway ticket) and the database keeps track of all the complaints filed by a particular Lokvani Centre. All complaints lodged through this site are monitored and sorted at the District Magistrate’s Office. The complaints are then marked to the concerned officers. A time frame is determined for the redressal, depending on the nature of the complaint. It varies from 15 to 40 days. The name of the officer, to whom the complaint has been marked, along with the deadline, is uploaded on the server the next day. The complainant can access these details within 2 to 3 days of lodging the complaint. In case, the complainant is dissatisfied with the decision, he/she can lodge a new complaint enclosing the previous complaint number and other details. The new complaint lodged will carry a history sheet containing all the details about the previous complaint and its resolution14.

7) FRIENDS in Kerala

FRIENDS (Fast, Reliable, Instant, Efficient Network for the Disbursement of Services) is a Single Window Facility providing citizens the means to pay taxes and other financial dues to the State Government. It was launched in Thiruvananthapuram in June 2000 and replicated in other district headquarters during 2001-02. The services are provided through FRIENDS JanasevanaKendrams located in the district headquarters. This project is a classic case of achieving front end computerized service delivery to citizens without waiting for completion of back end computerization in various government departments. This project thus tries to avoid the complex issues

involved in business process re-engineering in the participating departments. In fact, the FRIENDS counters are not even networked with the participating departments/entities. Print-outs of payments made through the counters are physically distributed to participating entities for processing. To remove bottlenecks at the time of processing, a government order was issued to treat a receipt from a FRIENDS counter as equivalent to a receipt from the concerned government entity. Owing to the success of the project, efforts have been initiated to develop FREES (FRIENDS Re-engineered and Enterprises Enabled Software) which would incorporate the ‘Any Centre Any Payment Mode’.

8) Khajane in Karnataka

It is a comprehensive online treasury computerization project of the Government of Karnataka. The project has resulted in the computerization of the entire treasury related activities of the State Government and the system has the ability to track every activity right from the approval of the State Budget to the point of rendering accounts to the government. The project was implemented to eliminate systemic deficiencies in the manual treasury system. The aspects of the project which require highlighting are:

- A prior study of deficiencies of the system was conducted. The best practices of the treasury system of some other States (Andhra Pradesh, Maharashtra, Tamil Nadu and West Bengal) were studied.

---

To eliminate redundant processes, systematic re-engineering was done. Processes were adopted to suit computer applications. A procedure manual was brought out.

Staff feedback was obtained. Motivation of staff was accorded high priority. User-friendliness of the software, simplification of processes and reduction of drudgery was highlighted.

Software development was supervised by treasury teams. Software was tested in representative treasury environments. Feedback was utilized in modifying the software.

Training was provided before software roll-out.

- The system includes features such as budget control, online funds transfer etc. This project manages to minimize efforts devoted earlier to reconcile the entries in the accounts and provides accurate information on a timely basis. Thus it has contributed in bringing efficiency in the government and aids the decision making process. This project has turned out to be success story16.

9) MCA 21

The Ministry of Corporate Affairs has implemented the MCA 21 Mission Mode Project under the NeGP in September 2006 and presently the project is in the post-implementation phase. The project aims at providing easy and secure online access to all registry related services provided by the Union Ministry of Corporate Affairs.

---

Affairs to corporates and other stakeholders at any time and in a manner that best suits them. The goals of this project were formulated keeping in mind different stakeholders. These were:

- **Business**: to enable registration of a company and file statutory documents quickly and easily.
- **Public**: to get easy access to relevant records and effective grievances redressal.
- **Professionals**: to enable them to offer efficient services to their client companies.
- **Financial Institutions**: to easily find charges for registration and verification.
- **Employees**: to enable them to ensure proactive and effective compliance of relevant laws and corporate governance.

The technical aspects of MCA 21 cover the following areas:

- **Design and development of application system**
- **Setting up of IT infrastructure**
- **Setting up the Digital Signature/PKI delivery mechanisms and associated security requirements**
- **Setting up of Physical Front Offices (PFOs)**
- **Setting up of temporary FOs for the peak periods to meet with the requirements and subsequent shutdown of temporary FOs at the end of such peak periods**
- Migrating legacy data and digitization of paper documents to the new system

- Providing MCA services to all MCA 21 stakeholders in accordance with the Service Oriented Approach

- Providing user training at all levels and all offices (Front and Back Offices).

The MCA 21 is designed to automate processes related to the proactive enforcement and compliance of the legal requirements under the Companies Act, 1956. The implementation of Front Offices (FO) is done in two ways. These can be called as Virtual Front Office (VFO) and Physical Front Office (PFO). The VFO is what the citizen has in front while accessing the MCA21 portal. The PFO is a replacement to the existing RoCcounters. Although the PFO accepts paper documents, these are converted into electronic documents by customer service agents manning PFO. The authorised person(s) are required to sign these documents digitally. The back office is what an MCA employee has in front while accessing the back office portal. The back office processes relate to:

- Dynamic routing of documents that have been electronically filed to the concerned official within MCA, based on the type of service request

- Electronic workflow systems to support speed and certainty in service delivery

- Storing of all approved documents of companies as part of electronic records, including provision of access to electronic records for the stakeholders

- Enhancing identification of defaulters
- Increasing efficiency of Technical Scrutiny
- Ensuring close follow-up on matters related to compliance management including prosecutions
- Enabling quicker responses to investor grievances
- Providing alerts when the tasks are not carried out within the stipulated period.

Accomplishments of MCA 21: The accomplishments of the MCA 21 can be presented under the following heads:

**Providing access to citizens/stakeholders (G2C services):** Section 610 of the Companies Act, 1956 allows inspection of documents kept by the Registrar of Companies by the various stakeholders on payment of statutory fees. After the implementation of MCA 21, this has become history. Presently, nearly 5 crore pages of legacy records consisting of permanent documents of companies (MOA, AOA, subsisting charge documents etc.) and Annual Returns and Balance Sheets for a period of two years preceding have been scanned, digitized and made a part of the MCA 21 electronic Registry. The electronic Registry has been further enriched with the e-filing of all the documents in various Registries with effect from the dates of roll-out of the programme and further mandated for the entire country with effect from September 16, 2006. Accordingly, the facility of inspection of documents granted under Section 610 of the Companies Act, 1956 has been converted into the facility of ‘View Public Documents’ under the MCA 21. Further, keeping in view that not all legacy records were scanned and digitized, a facility of ‘on-demand scanning’ has been provided. Under this facility, a
stakeholder can request for certain documents (subject to availability) to be scanned and made available online.

**G2B services:** Companies are required to interface with the Registrar of Companies (ROCs), the Regional Directors (RDs) and the Union Government in accordance with various provisions of the Companies Act. Prior to the implementation of MCA 21, all filings by the companies were in physical paper mode requiring a stakeholder or his representative to physically visit these offices or send the same by post. Handling large volumes of paper was a major problem and there were complaints on account of all sorts of undesirable practices such as loss of paper documents, ante-dated filings, replacement of statutory documents etc. A check on the quality of filings (correct and complete information) had virtually become impossible. Under MCA 21, various Forms have been re-engineered and converted into electronic Forms (e-Forms) to make them compatible with the e-Governance processes. The e-Forms have been designed with the in-built “pre-fill” feature whereby the data in the required fields is captured from the database available in the electronic registry in an automated manner. Requirements of repetitive data entry have been significantly reduced. The process of electronic filing also incorporates the facility of “pre-scrutiny” of the e-Form. This is a completely electronic process where the system verifies if the Form is complete in respect of mandatory fields. This is, however, limited to such checks as can be performed by the computerized system. Secondly, the system of payment of statutory fees has been re-engineered as a part of the overall process. In addition to the conventional challan-based off-line payment system in the pre-MCA 21 system, online payment systems have been introduced, including use of digital signatures based on a Director Identification Number (DIN) database. Third, services are now available on a 24 X 7 X 365 time frame. The outcome is that record management is automatic, digital records have largely replaced paper records and there is no question of
ante-date filings or loss or substitution of documents. Elements of speed, certainty and integrity in filing of documents are in place.

**G2G services and linkages:** The architecture of MCA 21 has been designed to meet future challenges and scalability. It is capable of sharing information with other Government Departments/ Ministries/ Regulators in the Corporate Sector and introduction of joined-up services in due course. Presently, free access to company documents having been allowed to the following organisations:

- Reserve Bank of India;
- Financial Intelligence Unit (FIU-IND);
- Department of Economic Affairs;
- Intelligence Bureau; and
- Central Statistical Organisation.

Access has been permitted to designated officers in these offices through a secure DSC based login. Once the other Departments implement their e-Governance programmes, and the NSDG develops the national Gateway, the MCA 21 system can be linked with more organizations.

The implementation of MCA 21 has provided an enabling environment for stakeholders to approach Government for seeking a complete basket of services in an easy and transparent manner. The implementation of e-Governance has also enabled plugging the leakages. Further, the stakeholder is now in a position to track the transaction status at
every stage; from making payment to the processing and ultimately the approval status. The time taken in delivery of services has shown remarkable improvement.

**Benefits:**

- installation and stabilization of the system takes time.
- acceptability by staff and efficient usage takes much more time.
- extensive staff participation is essential, despite best vendors and cutting-edge technology.
- involvement of domain specialists is a key pre-requisite.
- digitization and validation of data is a slow and error-prone process, especially when migrating from a paper-based system.
- stakeholders should be allowed to identify errors in the data through a fool-proof system.
- flexibility in the system is a must (e.g. validation of digital signatures required creation of the Director Identification Number database and creation of linkages with the professionals’ database of ICAI).
- in the transition period, certain processes from the old system may be allowed to continue.
- initiatives aimed at making the new system acceptable to the users need more focus and resources.
- benchmarks for service delivery need to be created and communicated to the users.
- A focused approach towards implementation of e-Governance projects is needed. For this, a separate team needs to be created within the organization.
Implementation of e-Governance projects should not be in the form of an additional responsibility.

- Assessment of changes to be made in the legal framework needs to be done in advance\(^{17}\).

10) **e-Mitra in Rajasthan**

This e-Governance initiative builds upon the experiences gained through the LokMitra and *JanMitra* pilot projects launched in 2002. While LokMitra was centred in the city of Jaipur, *JanMitra* was piloted in Jhalawar district to provide information and services under one roof to urban and rural populations. *e-Mitra* is an integration of these two projects in all the 32 districts using PPP model. There are two major components – ‘back office processing’ and ‘service counters’. Back office processing includes computerization of participating departments and establishing an IT enabled hub in form of a mini data centre at the district level (*e-Mitra* data centre). All participating departments and the service centres hook up to this data centre. It is managed by the Facility Management Service Provider on behalf of the district e-Governance Society (under Chairmanship of the district collector). Private partners (Local Service Providers) run the kiosks/centres. In case of collection on account of payment of utility bills and government levies, the Local Service Provider does not charge the citizen, but gets reimbursement from the concerned organization through the *e-Mitra*Society. In case of other services, the transaction fees is prescribed by the Society.

\(^{17}\)http://arc.gov.in/11threp/ARC_11thReport_Ch4.pdf, retrieved on 11-02-2010
Thus, this project is an improvement on earlier schemes as it also involves back office computerization. Further, the citizen is not required to pay any fees for availing of the facility for making payment for government utilities. The e-Mitra project has been chosen by the Government of Rajasthan to roll out the Community Service Centre project under NeGP.18

**Sum-up:**

This chapter is an humble presentation of the evolution of e-Governance in India. There have been islands of e-Governance initiatives in the country at the national, state, district and even block-level. Some of them have been highly successful and are suitable for replication viz., Bhoomi in Karnataka, e-Seva in Andhra Pradesh etc. A need was therefore felt for taking a holistic view of the several e-Governance initiatives implemented across the country. It was increasingly perceived that if e-Governance was to be speeded up across the various arms and levels of Government, it must be guided with common vision, elaborative strategy and practical approach. This would have been an added advantage of enabling huge savings in costs, in terms of sharing the core and support infrastructure, enable interoperability through standards etc, which would result in the citizen having a seamless view of Government. This study selected two cases from Andhra Pradesh and Karnataka with a view of discussing the above mentioned objectives. The basic idea of selecting the cases is that these two cases were not researched by institutions or individuals at universities. The forthcoming chapters elaborate these cases.