CHAPTER – I

INTRODUCTION

1.1 Introduction of e Governance

E-Government can be defined as the use of information and communications technologies by governments to enhance the range and quality of information and services provided to citizens, businesses, civil society organizations, and other government agencies in an efficient, cost-effective and convenient manner, making government processes more transparent and accountable and strengthening democracy.

1.2 Defining e-Governance

Although the term ‘e-Governance’ has gained currency in recent years, there is no standard definition of this term. Different governments and organizations define this term to suit their own aims and objectives. Sometimes, the term ‘e-government’ is also used instead of ‘e-Governance’. Some widely used definitions are listed below:

According to the World bank

“E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/ or cost reductions.”

Thus, the stress here is on use of information technologies in improving citizen-government interactions, cost-cutting and generation of revenue and transparency.

Basically, e-Governance is generally understood as the use of Information and communications Technology (ICT) at all levels of the Government in order to provide services to the citizens, interaction with business enterprises and communication and exchange of
information between different agencies of the Government in a speedy, convenient efficient and transparent manner. **Dr. APJ Abdul Kalam**, has visualized e-Governance in the Indian context to mean:

“A transparent smart e-Governance with seamless access, secure and authentic flow of information crossing the interdepartmental barrier and providing a fair and unbiased service to the citizen.”

**“Dr. APJ Abdul Kalam**

The goal of e-Government is not merely to computerize governmental records; to the contrary, the ultimate goal of e-Government is to transform government. Indeed, successful e-Government is at most 20% technology and at least 80% about people, processes, and organizations. It is important, therefore, to recognize that e-Government is not an end; it is an enabler. “e-Government” should eventually disappear as a distinct concept, because “government” rather than technology is at the core of e-Government and technology will eventually pervade all governmental operations. The key question, therefore, is whether the integration of government and technology will serve the interests of the public.

### 1.3 Why e-Governance

E-Government can transform citizen service, provide access to information to empower citizens, enable their participation in government and enhance citizen economic and social opportunities, so that they can make better lives, for themselves and for the next generation.

### 1.4 Components of E-governance

The following components can be identified:

- Technological Component with Electronic dimension.
- Social Component with Egalitarian dimension.
- Cultural Component with Ethical dimension.
- Political Component with Enactment dimension.
- Psychological Component with Extensional dimension.
- Service Component with Empowerment dimension.
1.4.1 Technological Component:

This relates to educate people who are in the bureaucratic structure or outside its periphery regarding use of electronic means to develop better connectivity within and with the system. It requires use of computers.

(a) In developing the data-base,

(b) In networking to facilitate the communication,

(c) In creating e- knowledge workers so as to increase their potentiality. This focuses on “e” of electronic knowledge and its proper utilization.

1.4.2 Social Component:

The fundamental duty of any government is to educate the society which is based on the principles of equality and justice. A society which is classless with no distinction between haves and haves-not, where nobody is marginalized from the main stream, and is committed to provide a respectful essence of life to its people without any discrimination of cast or race must be set up. This is possible when people will be aware of their rights & duties on the one hand, and know about the governmental policies made for them on related issues on the other, hence a vigilant society can be evolved where they can raise their voices by questioning the governmental decisions. This would help in attaining the “e” of egalitarian society with thrust on equality.

1.4.3 Cultural Component:

With the advent of the era of knowledge explosion there is a need to reorient some of the value patterns without eroding the fundamental normative structure of any social system. The need to create value patterns conducive for e- governance to operate focusing on work ethos therefore cannot be denied. Thus to work out the ethical framework is the key to move further by discarding obsolete set of values that come in the way of potential utilization. Thus “e” of ethical framework has to be the focal point in constructing a morality-based system.

1.4.4 Political Component:

The political system is essential aspect of governance. It holds responsibility of rationalizing various operative frameworks by enacting laws. This helps to maintain & sustain the cohesive force that is required by society to integrate its people and abide them to follow a
uniform policy to fulfill their targets. This refers to the importance of “e” of enactment of laws to stop society from disintegration.

1.4.5 Psychological Component:

Developing required psyche so as to facilitate formation and inculcation of right type of attitudes in the people is prerequisite for efficiency. Apart from this; readiness to connect to people, to listen to their queries, to look for solutions, to improve communicative skills etc. will be necessary elements for behavioral modifications. Hence personality adjustments must be carried out to cater to the needs of common man. This specifically relates to “e” of extension of self so as to have constructive collaborative social relationships.

1.4.6 Service Component:

The ultimate function of any welfare government is to serve. As a provider of good services to its people it has to assimilate the basic needs and also expectations of common man in to the documentation of policy, which then has to be implemented in the right spirit. This develops a constant pressure on the government to respond to public demands as this leads to the realization of power they can exercise on government to maintain impartiality, integrity and transparency in its functioning. This explains “e” of empowerment of people in any system.

1.5 Types of Interactions in e-Governance

e-Governance facilitates interaction between different stake holders in governance. These interactions may be described as follows:

➢ G2G (Government to Government):

In this case, Information and Communications Technology is used not only to restructure the governmental processes involved in the functioning of government entities but also to increase the flow of information and services within and between different entities. This kind of interaction is only within the sphere of government and can be both horizontal i.e. between different government agencies as well as between different functional areas within an organization, or vertical i.e. between national, provincial and local government agencies as well as between different levels within an organization. The primary objective is to increase efficiency, performance and output.
➢ G2C (Government to Citizens)

In this case, an interface is created between the government and citizens which enables the citizens to benefit from efficient delivery of a large range of public services. This expands the availability and accessibility of public services on the one hand and improves the quality of services on the other. It gives citizens the choice of when to interact with the government (e.g. 24 hours a day, 7 days a week), from where to interact with the government (e.g. service center, unattended kiosk or from one’s home/workplace) and how to interact with the government (e.g. through internet, fax, telephone, email, face-to-face, etc.,). The primary purpose is to make government, citizen-friendly.

➢ G2B (Government to Business)

Here, e-Governance tools are used to aid the business community – providers of goods and services – to seamlessly interact with the government. The objective is to cut red tape, save time, reduce operational costs and to create a more transparent business environment when dealing with the government. The G2B initiatives can be transactional, such as in licensing, permits, procurement and revenue collection. They can also be promotional and facilitative, such as in trade, tourism and investment. These measures help to provide a congenial environment to businesses to enable them to perform more efficiently.

➢ G2E (Government to Employees):

Government is by far the biggest employer and like any organization, it has to interact with its employees on a regular basis. This interaction is a two-way process between the organization and the employee. Use of ICT tools helps in making these interactions fast and efficient on the one hand and increase satisfaction levels of employees on the other.

1.6 Interventional strategies of e-Governance:

As e-Governance has shortened the gap between different cultures by trying to create a global society with mega cultural emphasis the following strategies can be identified, the use of which will facilitate achievement of this objective, though management of these would vary in pace in different countries.

➢ Transitive Counseling: In order to reduce the resistance, people need to be prepared for coming out of transitional phase. Thus proper counseling is required regarding changes in attitudes, reorienting mind sets etc. at various levels of governmental functioning.
➢ Electronic Accessibility: There is a need to equip people with necessary knowledge regarding use of electronic multimedia by imparting it through various Institutions. Technologically advanced Institutes with expertise must be set up which must established themselves as the centers of excellence by imparting to people the e-knowledge.

➢ Institutional Networking: Various agencies needed at different levels of governmental functionaries must be brought within the purview of constitutional framework by enacting laws for controlling their formal as well as informal constituents. A large-scale connectivity has to be ensured.

➢ Ethical Framework: Apart from legal framework morality has to be the key area where any society must work out strategic plan by designing ethos before adopting e-governance. The framework has to be supportive of fundamental societal normative pattern so that it gets extra leverage for perpetuating necessary values patterns.

➢ Role Shifting Strategies: New stresses are the byproducts of knowledge based society. Hence more humanitarian psychological coping mechanisms based on collaborative role shifts have to be introduced. Each role, organizational as well as personal must shift in such a way that effects of change can be managed without resulting into situation of crisis. This is to be learn that how & where role shift is required.

### 1.7 Benefits of e-Governance

In the end, e-Governance is about reform in governance, facilitated by the creative use of Information and Communications Technology. It is expected that this would lead to:

➢ **Better access to information and quality services for citizens:**

ICT would make available timely and reliable information on various aspects of governance. In the initial phase, information would be made available with respect to simple aspects of governance such as forms, laws, rules, procedures etc., later extending to detailed information including reports (including performance reports), public database, decision making processes etc. As regards services, there would be an immediate impact in terms of savings in time, effort and money, resulting from online and one-point accessibility of public services backed up by automation of back end processes. The ultimate objective of e-Governance is to reach out to citizens by adopting a life-cycle approach i.e. providing public services to citizens which would be required right from birth to death.
Simplicity, efficiency and accountability in the government:

Application of ICT to governance combined with detailed business process reengineering would lead to simplification of complicated processes, weeding out of redundant processes, simplification in structures and changes in statutes and regulations. The end result would be simplification of the functioning of government, enhanced decision making abilities and increased efficiency across government – all contributing to an overall environment of a more accountable government machinery. This, in turn, would result in enhanced productivity and efficiency in all sectors.

Expanded reach of governance:

Rapid growth of communications technology and its adoption in governance would help in bringing government machinery to the doorsteps of the citizens. Expansion of telephone network, rapid strides in mobile telephony, spread of internet and strengthening of other communications infrastructure would facilitate delivery of a large number of services provided by the government.

1.8 E Governance Relevance to India:

The Government of India, in various forums, has indicated its commitment to provide efficient and transparent government to all strata of society. E-Governance is now mainly seen as a key element of the country’s governance and administrative reform agenda. The Government of India aspires to provide:

- Governance that is easily understood by and accountable to the citizens, open to democratic involvement and scrutiny (an open and transparent government)
- Citizen-centric governance that will cover all of its services and respect everyone as individuals by providing personalized services.
- An effective government that delivers maximum value for taxpayers’ money (quick and efficient services)

Hence the Government of India views e-Governance as a vehicle to initiate and sustain reforms by focusing on three broad areas:
Governance

- Transparency
- People’s participation
- Promotion of a democratic society

Public services

- Efficient, cost-effective and responsive governance
- Convenient services to citizens and businesses
- Greater citizen access to public information
- Accountability in delivery of services to citizens

Management

- Simplicity, efficiency and accountability
- Managing voluminous information and data effectively
- Information services
- Swift and secure communication

1.9 Initiative Till Date

Recognizing that e-Governance is playing an increasingly important role in modern Governance, various agencies of the Government and civil society organizations have taken a large number of initiatives across the country. Indicated below are some of the key initiatives taken in the country across some of the important citizen/business related departments

Customs and Excise (Government of India)

- 98% of export and 90-95% of import documentation computerized
- Electronic filing through ICEGATE at 3 locations (Mumbai, Delhi, Chennai)
- 80% of Service Tax returns electronically processed

Indian Railways (Government of India)

- Anywhere to Anywhere reservation from Anywhere
- Electronic Booking of tickets on select sectors
- Online Information on Railway reservation on Internet

Postal Department (Government of India)

- Direct e-credit of Monthly Income Scheme returns into the investors accounts
Dematerialization of Savings Certificate (NSC) and Vikas Patras (KVP), offering full portability

**Passport / Visa (Government of India)**

- 100% passport information computerized
- All 33 Regional Passport Offices covered
- Machine readable passports at some locations

**AP Online (State Government of Andhra Pradesh)**

In Integrated Citizen Services Portal providing citizen centric services such as: Birth/Death Certificates, Property Registration, Driver’s License, Govt. Applications & Forms, Payment of taxes / utility bills etc.

**Bhoomi – Automation of Land Records (State Government of Karnataka)**

It provides computerized Record of Rights Tenancy & Crops (RTC) - needed by farmer to obtain bank loans, settle land disputes etc. It has also ensured increased transparency and reliability, significant reduction in corruption, exploitation and oppression of farmers. This project has benefited 20 million rural land records covering 6.7 million farmers.

**CARD – Registration Project (State Government of Andhra Pradesh)**

Computerization Administration of Registration Department (CARD) impacting 10 million citizens over a period of 3 years. It has completed registration of 2.8 million titles with title searches made in 1.4 million cases. The system ensures transparency in valuation of property and efficient document management system. The estimated saving of 70 million man-hours of citizen time valued at US$ 35 mil (investment in CARD - US$ 6million). Similar initiatives in other states like SARITA (State Government of Maharashtra) STAR (State Government of Tamil Nadu), etc. have further built upon this initiative.

In India, most citizen services are provided by state i.e. provincial governments and very few by the central i.e. federal government. However, both central and state governments provide different services to business and industry.
Gyandoot: Intranet in Tribal District of Dhar (State Government of Madhya Pradesh)

This project offers e-governance services including online registration of applications, rural e-mail facility, village auction site etc. It also provides services such as Information on Mandi (farm products market) rates, On-line public grievance redressal, caste & income certificates and Rural Market (Gaon ka Bazaar).

LOKMITRA (State Government of Himachal Pradesh)

✓ Offers e-governance services
✓ Online registration of applications,
✓ Rural e-mail facility, village auction site etc.

Key services provided to citizens:

✓ Information on Mandi (farm products market) rates
✓ On-line public grievance redressal
✓ Sending and receiving information regarding land records, income certificates, caste certificates and other official documents.
✓ Market rates of vegetables, fruits and other items

e-Mitra - Integrated Citizen Services Center (State Government of Rajasthan)

o Implemented using a PPP (Public Private Partnership) model
o Private partner paid by the government department / agency
o G2C services like:
  ✓ Payment of electricity, water, telephone bills
  ✓ Payment of taxes
  ✓ Ticket Reservations
  ✓ Filing of Passport applications
  ✓ Registration of birth/death
  ✓ Payment by cash/cheque/ credit card

The above cases of e-Governance initiatives are only illustrative. Many of the State Governments have successfully implemented several such initiatives. This has positively impacted the quality of life of citizens. Hence e-Governance affords an excellent opportunity for India to radically improve the quality of governance and thereby:
➤ Allow for two-way communication between government and citizens not only for service delivery but also to receive opinions of citizens on policies and government performance.
➤ Provide greater access to excluded groups, who have few opportunities to interact with government and benefit from its services and schemes
➤ Include all sections of the society in the mainstream of development
➤ Enabling rural and traditionally marginalized segments of the population to gain fast and convenient access to services in their own neighborhoods.

### 1.10 National E-Governance Program

Taking note of the potential of e-governance to improve the quality of life of the vast population of the country, the Government of India has formulated a national program – the National e-governance Plan (NeGP). This plan attempts to cover all the important areas relating to e-Governance – Policy, Infrastructure, Finances, Project Management, Government Process Reengineering, Capacity Building, Training, Assessment and Awareness etc. across the Central and State Governments.

The vision of NeGP is to make all Government services accessible to the common man in his locality through common service delivery outlets. The implementation strategy envisages clear definition of service goals and metrics for each project and structured stakeholder consultations with all stakeholders including citizens and civil society organizations before the service goals of each project are firmed up. Even at the stage of formulation of the NeGP, its vision and proposed strategy, consultations were held with various stakeholders including state governments, ministries/departments, IT industry representatives and civil society organizations. The focus of the plan includes the following sectors/projects:

➤ **Agriculture**

E-governance projects in the agricultural sector can provide benefit to farmers and the rural people and also enhance the lives of urban poor. There are numerous sub-projects pertaining to provision of timely expert advice to farmers, food security, marketability and commercial information relating to agricultural products, enhancing crop productivity, enhancing the reach of and ease of access to micro-credit, etc.
➢ **Municipalities**

The coordinating agency is the Ministry of Urban Development. The main programs relevant to vulnerable and marginalized groups are registration of births and deaths, grievances and suggestions, health programs, etc.

➢ **Gram Panchayats (elected village administration)**

The important programs being implemented by the Ministry of Rural Development for poverty reduction are employment generation, provision of basic services, infrastructure development etc. The objective is to increase participation of rural population in the government and women empowerment.

➢ **Common Service Centers (CSCs)**

It is one of the integrated projects envisioned in NeGP. The CSCs provide assisted community access points – a necessity in a country with relatively low levels of literacy and ICT penetration in rural areas. These centers are very effective in providing multiple services provided by different departments at a single location. For a common citizen, it is often confusing and time-consuming to have to visit different departments and identify the right official or office to avail of some service. This one stop shop is also helpful in increasing accessibility, enabling faster service delivery, curbing corruption and reducing difficulties faced by vulnerable and marginalized groups. Under this program, it is aimed to establish 100,000 CSCs predominantly in the rural areas to serve the needs of the traditionally underserved areas.

1.11 **Difference between e Government and E Governance**

Both the terms are treated to be the same, however, there is some difference between the two. "E-government" is the use of the ICTs in public administration - combined with organizational change and new skills - to improve public services and democratic processes and to strengthen support to public. The problem in this definition to be congruence definition of e-governance is that there is no provision for governance of ICTs. As a matter of fact, the governance of ICTs requires most probably a substantial increase in regulation and policy-making capabilities, with all the expertise and opinion-shaping processes among the various social stakeholders of these concerns. So, the perspective of the e-governance is "the use of the technologies that both help governing and have to be governed".
E-governance is the future, many countries are looking forward to for a corruption-free government. E-government is one-way communication protocol whereas e-governance is two-way communication protocol. The essence of e-governance is to reach the beneficiary and ensure that the services intended to reach the desired individual has been met with. There should be an auto-response to support the essence of e-governance, whereby the Government realizes the efficacy of its governance. E-governance is by the governed, for the governed and of the governed.

Establishing the identity of the end beneficiary is a challenge in all citizen-centric services. Statistical information published by governments and world bodies does not always reveal the facts. The best form of e-governance cuts down on unwanted interference of too many layers while delivering governmental services. It depends on good infrastructural setup with the support of local processes and parameters for governments to reach their citizens or end beneficiaries. Budget for planning, development and growth can be derived from well laid out e-governance systems.

1.12 E Governance challenges specific to India

We list down some of the challenges which are specific to India - (Some of the inputs are taken from an officer from NIC):

- Lack of Integrated Services: Most of the e Governance Services being offered by state or central governments are not integrated. This can mainly be attributed to Lack of Communication between different Departments. So the information that resides with one department has no or very little meaning to some other department of Government.
- Lack of Key Persons: e Governance projects lack key persons, not only from technological aspect, but from other aspects as well.
- Population: This is probably the biggest challenge. Apart from being an asset to the country it offers some unique issues, an important one being Establishing Person Identities. There is no unique identity of a person in India. Apart from this, measuring the population, keeping the database of all Indian nationals (& keeping it updated) are some other related challenges.
- Different Languages: A challenge due to the diversity of the country. It enforces need to do governance (upto certain level), in local languages. Ensuring e Governance in local language is a big task to achieve.
According to an officer from NIC, success factors of e-Governance projects -

- 10% Technology
- 60% Process
- 20% Change Management
- Rest is luck

1.13 The E Gov India Consortium Team

The E gov India Consortium consists of institutions and individuals of national and international repute having considerable experience and track record in the areas required for e Governance. The key Consortium members understand Indian context, on going reforms in India and in other countries such as South Africa, etc., and worked with info Dev.org and other international development agencies.

The e Gov INDIA Consortium have thoughtfully designed the team to include practitioners, technical people, administrators in the government (Indian Administrative Service (IAS)) and the private sector, researchers and trainers and reform champions of repute to meet the objectives of any work in the area e Governance. The e Gov INDIA Consortium team consists of individuals with experience in ICTs and e-governance in both Urban and Rural areas.

1.14 What is E Governance?

It is the use of a range of modern information and Communication Technologies such as Internet, Local Area Networks(LAN), Mobiles etc., by Government to improve the effectiveness, efficiency, service delivery and to promote democracy.

1.15 Governance : An Information perspective

- Representative democracy relies on supposition that best way to make a decision is wider participation for all its citizens having access to relevant information.
- Government is by nature an information intensive organization.
- Information is power and information management is political.
1.16 Governance : In IT framework

✓ Expansion of Internet and electronic Commerce, is redefining relationships among various stake holders in the process of Governance.
✓ A new model of Governance would be based upon the transactions in virtual space, digital economy and dealing with knowledge oriented societies.
✓ Electronic governance is an emerging trend to re-invent the way the Government works.

1.17 E Governance : Focus

✓ Greater attention to improve service delivery mechanism
✓ Enhancing the efficiency of production
✓ Emphasis upon the wider access of information

E Governance Vs E Government

“Government’s foremost job is to focus society on achieving the public interest”.

“Governance is a way of describing the links between government and its broader environment – political, social and administrative”.

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E-Governance is the application of Information and Communication Technology (ICT) for delivering Government Services, exchange of information, communication transactions, integration various stand-alone systems and services between Government and Citizens (G2C), Government and Business (G2B) as well as back office processes and interactions within the entire Government frame work. Through the e-Governance, the Government services will be made available to the citizens in a convenient, efficient and transparent manner. The Government being the service provider, it is important to motivate the employees for delivering the services through ICT. To achieve this, the Government employees are being trained on technology and started realizing the advantage of ICT. The aim is to make them thorough with e-Governance applications and responsive to the technology driven administration.

“ICTs(Information and Communication Technology) are effectively showing new dimensions to old institutional setups. There is a reinforced trust for an informed and participatory citizenry for e governance. It goes without saying that impact of ICT on institutional changes is fast spreading across the boundaries of social and political arrangements of societies.”

1.18 What does E-Governance seek to achieve

- Efficiency
- Transparency
- Citizen's participation

1.19 Enabling e-governance through ICT contributes to

- Good governance
- Trust and Accountability
- Citizen's awareness and empowerment
- Citizen's welfare
- Democracy
- Nation's economic growth

ICT is the biggest enabler of change and process reforms with minimum resistance. Decades of attempts for government and process reforms fade in face of what ICT has achieved in few years. People would not so readily accept process change but in the name of ICT they do.
1.20 **National Informatics Centre (NIC)**

National informatics Centre(NIC) of the Department of Information Technology is providing network backbone and e Governance support to Central Government, State Government, UT Administrations, Districts and other Government bodies.

The Informatics Centre(NIC) National was set up in March 1977 by the Government of India. From the genesis of the concept of NIC in 1973 to its nucleation by 1975 and followed by commissioning of NICNET in 1977, it has been a phase of innovation penetrating through the barriers of conservatism in Government organizations for Computer based Information System.

With the signing of Memorandum of Understanding with all the State Governments and with their active support in implementing the computer communication network, NICNET, the National Informatics Centre has become a bridge between the state Governments and the Central Governments on the other hand and the State Governments and their District administrations on the other. In NIC’s approach to National Informatics, therefore, the State Government becomes a focal point with downward coordination with the District administrations and upward coordination with the Central Government Departments. The greatest asset of NIC, today it its pool of about 4000 well trained and motivated computer personnel, specialized in informatics, working with dedication and quietly catalyzing the transformation of work culture in the Ministries / Departments.

1.21 **The Principal objectives of NIC include**

- Development of computer based information systems in various sectors of the economy for planning, project monitoring and decision support.
- Promotion of informatics culture at District, State and National level.
- Improvement of the analytical capability and presentation of information utilized for National, State and District level planning.
- Development of modeling, forecasting and simulation techniques that are required for planning and decision support.
- Establishment of a computer communication network for ensuring ready access of information across the nation and enabling optimal use of resource.
- Evolving standards for data collection, compilation and dissemination, with the cooperation of related agencies at District, State and Central levels.
1.22 Listed below are the few products and services supported by NIC to the E Governance in India

✓ AGMARKNET

AGMARKNET aims at connective agricultural produce wholesale markets in the country for sharing market information. AGMARKNET portal has been evolved to strengthen interfaces among Agricultural Marketing related Government and Non-Government organizations, farmers, traders, exporters, policy makers, academic institutions etc., (http://www.agmarknet.nic.in)

✓ BHUIYAN – Land Records Computerization

The web enabled software facilitates the online retrieval of land information. These details of land are generally required by a farmer to apply for a loan from time to time and this software facilitates the easy retrieval of these details from kiosks spread over the state. The other feature is the administrator can view the abstract of Khasara, Khatauni, Area wise details. Farmer wise details, Revenue collection details of a particular land. (http://cglrc.nic.in)

✓ E Post

Messages can be sent anywhere in India through post offices using the e post software. (http://indiapost.nic.in)

✓ Examination Results Portal

The first Source of Examination Results on the web, the portal is a one stop source to get online results of various Academic, Entrance and Recruitment examinations conducted by various government agencies. Come of the important results published on this portal include CBSE, State Education Boards, Universities, Professional Institutes(Engineering, Medical, MBA, CA etc.,)(http://results.nic.in).

✓ Gyandoot e Governance Project

Data entry / updation, Report module, Query module (http://gyandoot.nic.in).
✓ JUDIS

JUDIS is comprehensive online library of case law that contains all reportable judgment’s of the Supreme Court of India and various High Courts of India. (http://judis.nic.in)

✓ Passport Website

The site 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.(http://passport.nic.in)

✓ Rural Bazar

This product is used to strengthen the marketing efforts and showcase and sell the products by rural poor. Artisans.(http://ruralbazar.nic.in)

✓ Value added Tax(VAT)

The VAT application software is used by the Taxation Department to monitor the Revenue generated by the State Government in the form of Collecting Taxes and Monitoring of the Sales Returns from the Commercial Establishments in the State. The modules that are ready for implementation are the Registration, Challan, Way bill, Transit Documents etc., (http://megvat.nic.in)

1.23 IT Initiatives In Tamil Nadu

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 been playing a seminal role in facilitating the development of e- service centers throughout the State through suitable public-private partnerships. The organization is dedicated to ensuring that the public in the State does not have to come to government offices necessarily for accessing different services. 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.
1.24 Mission of Information Technology Department in Tamil Nadu

✓ Provide Government services, both informational and transactional, to Citizens at their door steps through the internet at the earliest.
✓ Bridge the digital rural urban divide
✓ Make Tamil Nadu the Best in IT enabled Governance.
✓ Substantially increase the software exports of Tamil Nadu.
✓ Provide Cable TV services to all households in Tamil Nadu at reasonable rates, at the earliest.
✓ Take Computing in Tamil to a higher level.
✓ Enhance the quality of life of Citizens through Information and Communication Technology

1.25 E-Governance

The Tamil Nadu e-Governance Agency is the entity that facilitates E-Governance efforts in Tamil Nadu. As part of the e-Governance initiative, a large part of government records like land ownership records have been digitized. All major administrative offices like local governance bodies and various government departments have been computerized.

How do you intend to make Tamil Nadu the best in IT enabled governance?
E-governance encompasses several things – how do we make shabbily looking government offices world class?

- That has happened in the private sector because of internet and the way work happens through work stations etc. Ambience matters a lot these days and can be substantially improved through e-governance.
- Two, since work flow can be automated, most of the paper work can be reduced or can be almost made nil like paperless offices, ERP enabled system or CRP enabled offices.
- Third, by making governance faster, more efficient and transparent so that the services are available to citizens at a faster pace. For example, a villager who has a computer with internet at home can avail government services from his home itself without having to visit government offices. The whole idea is to minimize citizen-government office interaction and maximize citizen-government interaction. This will also aid in addressing issues related to corruption.
1.26 Ongoing projects

- Currently, the ELCOT team is working on other e-governance projects related to old age pension, registration of properties and commercial taxes — online tool for new VAT dealers’ registration and facilitating filing of monthly returns.

- ELCOT received 3.15 lakh family cards from the Civil Supplies Department, of which over 2.71 lakh have been printed and delivered. Pilot testing in taluk and block offices will commence soon.

- The TNSWAN infrastructure creation team headed by Suganthi and supported by all the 30 District Collectors accomplished site preparation, installation, commissioning of the network equipment and carrying of acceptance testing of the network within 12 months.

- “We decentralized data-capturing operations for issuing new family cards from July 25. The District Collect orates have become data-capturing centers. Each Collect orate has been provided with a 10-user network connected to TNSWAN. We managed to produce and deliver around 10,300 family cards a day during the last one month,”

1.27 E Governance Policy

Figure No: 1

Source: www.google.com

Figure No: 1 explains the e government policy and the working process of the common service Centre.
1.28 State Data Centre

Figure No: 2

Source: www.tn.gov.in

Figure No 2 explains the State Data Centre (SDC): State Data Centre has been identified as one of the element of the core infrastructure for supporting e-Governance initiatives of NeGP (National e-Governance Plan). The establishment of State Data Centre (SDC) for Tamil Nadu has been initiated as per the guidelines of SDC. It is a Scheme shared between Central and State.

The SDC will consolidate services, applications and infrastructure to provide efficient electronic delivery of G2G, G2C and G2B services. State Data Centre would provide many functionalities via TNSWAN (Tamil Nadu State Wide Area Network) and CSC (Common Service Centre).

As Phase-1 of this project, Main Frame Servers have been commissioned adjacent to the Network Operating Centre (NOC) of TNSWAN at ELCOT Premises, Perungudi to meet the immediate requirement of the Departments to roll out their applications through TNSWAN from July 2007 onwards. Both TNSWAN & the Mainframe Data Centre were formally inaugurated by the Hon'ble Chief Minister of Tamil Nadu & Hon'ble Minister for Communications & I.T, GOI on 8.04.08.

Vide Administrative Approval No.3(24)/08 EG-II dt. 28.02.2008, Government of India (GOI) has sanctioned Rs.55.8 Crores as DIT Share over a period of 5 Years.
Government of Tamil Nadu (GoTN) issued G.O.Ms.No. 15 of Information Technology Department dated 29.07.2008 for establishing SDC at an estimated cost of Rs.55.8 Crores over five year period funded by Government of India and nominating ELCOT as the Implementing Agency of the project.

Project Implementation Committee had been formed by the State Government vide G.O.Ms.No.20 dated 20.09.2008 as per the guidelines of DIT, GOI to monitor the project.

1.29 IT HARDWARE PROCUREMENT

The Government have approved ELCOT as the Optional Procurement Agency for the procurement of IT products and related service. ELCOT has adopted an innovative procurement Policy by encouraging competition among the vendors coupled with an open and transparent procurement process. This has resulted in price reduction to a tune of 20 – 30 % of the market value of the products, thus contributing to substantial savings for Government Departments. ELCOT also launched special offer schemes like students Laptop Scheme to supply high end Laptops on a very competitive price to benefit the student community. During 2008 – 2009, ELCOT procured IT products for a value of Rs.308.65 Crores.

To cope with the Government requirements, ELCOT worked out an aggressive pricing for NOVELL SUSE Operating System and as per the rate contract. ELCOT has been offering NOVELL’S audio / video software, I pod interface software, application software development tools and a host of other software packages at a cost of Rs.300/. The advantages of Linux operating system are that this is immune from hacking and virus problems. It does not require any anti – virus software saving the cost on anti – virus software. LINUX offers rich experience while working on the internet. The download speed and the normal browsing speed of Internet is excellent.

In the last three years, ELCOT has successfully migrated all the new procurements from CRT Monitor Computer Systems to TFT Monitor Computer Systems. This has already saved sufficient work space and electricity. While migrating from CRT Monitor Computer Systems to TFT Monitor Systems, a saving of 80 – 90 Watts per system has been effected. Currently, the Desktop Systems with TFT consume anywhere between 120 and 140 Watts.
1.30 SOFTWARE DEVELOPMENT

ELCOT and TNeGA provides end to end IT solution support to Government Departments to improve their services to citizens, to provide transparency and to effect significant reductions in processing time. ELCOT and TBeGA have been providing active support to the Government Departments for their software needs by studying the department requirements, preparation of RFD documents, selection of application developers through tenders. ELCOT coordinates with the department and the selected developer in finalizing the system requirements study(SRS) and user acceptance testing and successful implementation of the software. ELCOT also offers Facility Management Services(FMS).

1.31 COMPUTER TRAINING

The Government have been contemplating the implementation of 14 mission mode eGovernance Projects. Capacity building among 1.2 million Government employees is a prerequisite for the successful implementation of all these projects. To provide high end IT training to Government Employees, ELCOT had opened Training Centers all over the State in the respective district collect orates except Chennai. In Chennai, ELCOT Training Centre is functioning at Periyar Building Complex, Nandanam, Chennai. With 320 Seater Capacity. In Madurai and Trichy the training hall seating capacity is 50 and in other Districts, the training hall seating capacity is 25.

- ELCOT had opened Training Division with Hi – Tech training facility(Laptop, Multimedia Projector and high speed Internet Connectivity through TNSWAN) for training the Government Officials in Chennai and other Districts.
- ELCOT has trained over 18,000 officials of various departments including Commercial Tax, Registrar of Co operative Societies, Tamil Nadu Industrial Investment Corporation(TIIC), Corporation of Chennai(Education Department), Elementary Education, Agriculture Department, Central Co Operative bank in all Districts.
- ELCOT had engaged Professional Trainers on contract basis to provide Open Source Technology Training. Application Software Training through web portal is also given to Government Department officials like Public Health and Preventive Medicine by ELCOT in all Districts.
- ELCOT trained 70 visually Challenged Persons in two phased and 20 trans genders in Linux Operating System at ELCOT.
Table No: 1.1: Rollout Implementation of 3 District Project

<table>
<thead>
<tr>
<th>Chennai</th>
<th>Cuddalore</th>
<th>Dharmapuri</th>
<th>Dindigul</th>
<th>Erode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kancheepuram</td>
<td>Kanniyakumari</td>
<td>Karur</td>
<td>Madurai</td>
<td>Nagapattinam</td>
</tr>
<tr>
<td>Namakkal</td>
<td>Pudukkottai</td>
<td>Ramanathapuram</td>
<td>Salem</td>
<td>Sivagangai</td>
</tr>
<tr>
<td>Thanjavur</td>
<td>Theni</td>
<td>Thoothukudi</td>
<td>Tiruchirapalli</td>
<td>Tirunelveli</td>
</tr>
<tr>
<td>Tiruppur</td>
<td>Tiruvallur</td>
<td>Tiruvannamalai</td>
<td>Vellore</td>
<td>Villupuram</td>
</tr>
<tr>
<td>Virudhunagar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: www.tn.gov.in

The State Government proposes for Rollout Implementation of e-District Project to all the remaining 26 districts of the state of Tamil Nadu including Chennai, apart from the 6-Pilot Districts. Theses 26 districts are listed above in Table No: 1.1

1.32 The Corporation of Chennai e Governance

The Corporation of Chennai (previously Madras) is the Oldest Municipal Institution in India established on the 29th September 1688. It is located on the Coromandel Coast on the Northern end of the State of Tamil Nadu. It covers about 426 Sq. Km. and has an estimated present population of Chennai is 6.5 Million.

Corporation of Chennai has been a pioneer in the area of e Governance and was the first corporation in India to adopt Double Entry Accrual based accounting system. The double entry accounting system was introduced in 1988. Most of its operations were already computerized. However they were all operating in silos with no integration between these systems. Corporation of Chennai decided to launch an integrated Municipal ERP covering key functions of the ULB and selected e Governments Foundation as the implementing agency.
The system currently has more than 1000 active users and they are expected to jump up to 4000 in due course of time.

1.33 **Scope of e Governance in Corporation of Chennai**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Double Entry Accrual based Financial Accounting</td>
</tr>
<tr>
<td>2.</td>
<td>Collection Management System</td>
</tr>
<tr>
<td>3.</td>
<td>Employee information system</td>
</tr>
<tr>
<td>4.</td>
<td>Property Tax Management System</td>
</tr>
<tr>
<td>5.</td>
<td>Land and Estate Management System</td>
</tr>
<tr>
<td>6.</td>
<td>Trade license Management System</td>
</tr>
<tr>
<td>7.</td>
<td>Professional Tax</td>
</tr>
<tr>
<td>8.</td>
<td>Company Tax</td>
</tr>
<tr>
<td>9.</td>
<td>Works Management System</td>
</tr>
<tr>
<td>10.</td>
<td>Payroll management system</td>
</tr>
<tr>
<td>11.</td>
<td>Pension Management System</td>
</tr>
<tr>
<td>12.</td>
<td>Asset Management System</td>
</tr>
<tr>
<td>13.</td>
<td>Inventory Management System</td>
</tr>
<tr>
<td>14.</td>
<td>Legal Case Management System</td>
</tr>
<tr>
<td>15.</td>
<td>Public Grievance and Redressal system</td>
</tr>
</tbody>
</table>

**Source:** [www.egoverments.org/index.php/egov-financials.html](http://www.egoverments.org/index.php/egov-financials.html)

In October 2011, the Chennai Municipal Corporation's municipal limits were enhanced by annexing 42 local bodies including nine municipalities, eight town panchayats and 25 village panchayats to expand the city limit from the existing 174 sq km to 426 sq km. The number of wards were changed from 155 to 200 wards. Having a centralized integrated system helped out in making the relevant changes and rolling out these systems to the extended areas. eGov completed the whole exercise in less than 2 months from the receipt of order from the corporation.
1.34 About Chennai and Corporation of Chennai

Chennai City

Chennai formerly known as Madras, is the capital city of Tamil Nadu. Chennai is the fourth most populous metropolitan area and the fifth most populous city in India. Chennai city had a population of 4.34 million in the 2001 census within the area administered by the Corporation of Chennai. The urban agglomeration of metropolitan Chennai has an estimated population over 8 million people.

Chennai’s economy has a broad industrial base in the automobile, technology, hardware manufacturing, and healthcare industries. The city is India's second largest exporter of software, information technology (IT) and information-technology-enabled services (ITES). A major chunk of India's automobile manufacturing industry is based in and around the city. Chennai Zone contributes 39 per cent of the State’s GDP. Chennai accounts for 60 per cent of the country’s automotive exports and is referred to as the Detroit of South Asia.

1.35 Corporation of Chennai

Corporation of Chennai also known as the Municipal Corporation of Chennai is the civic body that governs the city of Chennai, India. The Chennai Corporation is the oldest municipal body of the Commonwealth of Nations outside the United Kingdom and the oldest corporation in India. It is headed by a mayor, who presides over 155 councilors each of whom represents one of the 155 wards of the city. The corporation is governed by the Chennai City Municipal Corporation Act 1915 which starts with the following preamble.

1.36 Preamble.

WHEREAS it is expedient to consolidate and amend the law relating to the municipal affairs of the City of 1[Chennai] and whereas the previous sanction of the Governor-General has been obtained under section 79 of the Government of India Act, 1915, to the passing of this Act;

1.37 Administrative Set-Up

The Commissioner of the Corporation is the Chief Executive. He has his office in the Ripon buildings. The Commissioner is assisted by Three Joint Commissioners, one Deputy Commissioner from Indian Administrative Service, Two Chief Engineers and Seven Superintending Engineers. The work of rendering civic service is taken care of by field staff. For the sake of administrative convenience the Corporation area is divided into 10 Zones and each Zone is headed by a Zonal Officer.

1.38 Administrative Chart of Chennai Corporation
From the below chart No :1.1.1 it could be seen that the administration of Chennai corporation in detail

Chart No : 1.1.1

Source : www.tn.gov.in

From the below chart No :1.1.2 explains the Executive work flow from Worshipful Mayor to the lower level hierarchy

Executive Chart

Chart No 1.1.2

Source : www.tn.gov.in/exe.chrt

1.39 Corporation of Chennai Departments

- Council Department:

  The Council Department is headed by a Council Secretary. This department functions as the
Secretariat of the Council, the Mayor and the various standing committees. It aids the Mayor in the discharge of his duties as well as the Council and Standing Committees.

- **General Administration**

  This department is in charge of the Personnel and Administrative matters of the Corporation. All appointments, promotions, training, retirement, settlement of post retirement benefits, staff discipline, etc. are taken care by this department.

- **Financial Management Unit**

  It is headed by Financial Adviser. The Officer is deputed from the Finance Department of the Secretariat. Preparation of Corporation Budget, Receiving Loans & Grants from Govt. and overseeing and controlling the expenses of the Corporation are the responsibilities of this unit.

- **Land & Estate Department**

  This department is headed by a District Revenue Officer (DRO). Leasing out Corporation lands, buildings, renting out shopping complexes are the responsibilities of this department.

- **Revenue Department**

  Revenue Officer is the head of the department. He is responsible for the collection of Property Tax, Profession Tax, Advertisement Tax, Collection of Parking Fees and other Taxes. At the Head Office, change of name of ownership of properties, collection of taxes and scrutiny/approval of assessment proposals.

**Engineering Departments**

- **Works Department**

  Sanction of building plan and building permits up to first floor for industrial and residential building. Maintenance of private streets and central asphalt plant and central yard are being dealt by this department.

- **Mechanical Engineering Department**

  The Superintending Engineer (Mechanical) is the head of the Department. He is responsible for the purchase, maintenance of all vehicles of the Corporation of Chennai. Attend to body building and repairing of lorries and purchase and maintenance of Schools & Office furniture's. The Printing Press, General Stores, General Workshop of Corporation of Chennai are functioning under the control of the Mechanical Engineering Department.

- **Electrical Department**

  Electrical Department is headed by a Superintending Engineer (Electrical). Installation and maintenance of all street lights and laying of cables, maintenance of Electric Crematoriums are
looked after by the Department.

- **Solid Waste Management Department**
  This department takes care of removal of Solid Waste which is a major responsibility of the Corporation. Every day 3200 MT. of garbage is collected and removed from the City. Night conservancy is being carried out in all important roads and commercial areas of the City.

- **Buildings Department**
  Buildings Department carries out capital nature of works such as construction of school buildings, Public Conveniences, Community Halls, Shopping Complexes and Hospitals.

- **Storm Water Drain Department**
  Headed by a Superintending Engineer. Takes care of Construction, maintenance and desalting of Storm Water Drains.

- **Bridges Department**
  Bridges Department is headed by a Superintending Engineer. Construction and maintenance of Bridges, Causeways and sub-ways are the responsibilities of this Department.

- **Health Department**
  Medical Officer who heads this department looks after the administration of Dispensaries, Public Health, Sanitation, Prevention of Food adulteration, issue of Birth & Death Certificates and Sanitation Certificates.

- **Family Welfare Department**
  Headed by a Medical Officer. This Department looks after the administration of Maternity & Child Welfare Centers, Family Welfare and Immunization Programs.

- **Education Department**
  The Education Officer is the head of this department. Looks after the administration of the Schools from Elementary to Higher Secondary Schools, Community Colleges and Nutritious Meals Centers.

- **Parks & Play Fields**
  Maintenance of Parks & Play fields and Swimming Pools are under the control of the Director, Urban Forestry Wing. He is assisted by two Park Superintendents and One Stadia Officer.

### 1.40 Services provided/proposed by Corporation of Chennai through e-Governance

Corporation of Chennai offers various external and internal services to the citizens and to the departments respectively. Some of these services have existing e-Governance initiatives and some are proposed to take up new e-Governance initiatives. Corporation of Chennai intends
to implement e-Governance across all the functions and service areas. List of services which are proposed by the Corporation of Chennai is given below out of which some services falls under JNNURM and additional services are categorized at per the legends given.

1.41 Services suggested under JNNURAM guidelines additional services currently present at Corporation of Chennai

- G2C Government to Citizen
- G2B Government to Business
- G2E Government to Employee
- D2D Department to Department

Technology

Corporation of Chennai was the first implementation of the eGov Integrated Municipal ERP. The system is built on an open source J2EE platform with Oracle as the database. The operating system is Redhat Enterprise Linux.

Infrastructure

The physical servers are located in the data center managed by ELCOT. The servers are centrally hosted all the zones and ward offices connect over existing leased line connections and broadband to the centralized server. As more services are made available to the users, additional servers can be added in a clustered environment to scale the applications.

1.42 Zonal Offices

Corporation of Chennai interacts with its citizens and other stake holders through the 10 zonal offices spread across the districts as shown below in Figure No 3

![Figure No: 3](image-url)
Awards - Skoch 2010 - The world is open award

The Chennai Corporation received the Skoch Award 2010 in New Delhi for its online integrated public grievance and redressal facilities. Mayor M.Subramanian received the award from Union Minister for Urban Development S.Jaipal Reddy. The facility includes the civic body's **1913 helpline**; a mobile number for sending details of grievance through SMS; and its website. Chennai Corporation implements eGov Public Grievance and Redressal system.

Commissioner ate of Municipal Administration looks after the affairs of 125 number of Municipalities, 9 city Municipal Corporation (other than Chennai Corporation) in the State of Tamil Nadu. The website has been created to enable better interaction among the officials of the urban local bodies of Tamil Nadu and to facilitate the citizens to have a better interface with Urban Local Bodies

Tamil Nadu is one of the most urbanized state in India. As per 2001 census 44.63% of the population in the State of Tamil Nadu lives in the urban areas. Depending on the population and income of the urban local bodies, there are 3 types of urban local bodies.

1. City Municipal Corporation
2. Municipalities
3. Town panchayats

Commissioner of Municipal Administration Coordinates the various activities of the Municipalities and Municipal Corporations in the field of Tax Administration, Financial
Management, Infrastructure development, Town planning, Urban health, Environment management, Schemes for Urban poor etc. in the State of Tamil Nadu.

To facilitate the coordination of the Municipalities, 7 Regional Directorate of Municipal Administration are functioning at Chengalpet, Vellore, Tanjavoure, Madurai, Salem, Tiruppur and Tirunelveli. The Chennai City Corporation, Tamil Nadu has chalked out new measures to implement e Governance in association with Electronic Corporation of Tamil Nadu(ELCOT).

The new proposal to go in for paperless governance was accepted at its council meeting. An estimate of Rs 6.9 crore by ELCOT for providing software, hardware, maintenance and training to the civic agency was accepted. The council had decided to seek assistance either from the Information Technology Ministry or the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for implementing the project. Software was being prepared for budgeting and accounts, property tax assessment, birth and death certificates, works supervision, building approval, geographic information system (GIS) and grievance redressal. Wireless radio communications between Corporation departments and grievance redressal by SMS, were other proposals that were passed in the meeting.

1.43 e Governance Architecture in Chennai Corporation

Figure No:4
Figure No: 4 it could be clearly seen the architecture of e governance in Chennai corporation data Centre.

NeGP has identified the formulation of various Mission Mode Projects in e-Governance, including the one for municipalities under the responsibility of the Ministry of Urban Development (MoUD), in collaboration with the Department of IT (DIT).

JNNURM (Jawaharlal Nehru National Urban Renewal Mission) has taken up this National Mission Mode Project (NNMP) for e-Governance in Municipalities as one of the critical mission mode projects that have significant citizen interactions as they provide a large number of basic civic services to millions of citizens living in urban areas. Introduction of e-Governance on a massive scale would hence, lead to better services. It is also envisaged that under this JNNURM Mission Mode Project there would be a major fillip towards the urban reforms as initiated by Ministry of Urban Development, Government of India.

Chennai has always been a forerunner in urban sector reforms and has vigorously pursued the reform process and is credited with many major achievements in the urban sector of Tamil Nadu. The increase in the urban population and related economic activities accentuate the demand for urban infrastructure. Bridging the gaps in various urban services is the top priority of the Corporation, along with augmenting of resources, so that they can progressively become self-sustaining entities.

1.44 As identified Corporation of Chennai have the following priorities for Good Governance:

- Transparency in Administration
- Promptness and Efficiency
- Courtesy and understanding integrity and judiciousness
- Accountability and credibility

The current scenario warrants comprehensive process re-engineering to demystify the existing processes to enhance citizen satisfaction and improving the Departments efficiency and image. E-Governance has evolved as a potential enabler to realize the development and governance vision of a Department.

All the major services which are taken up for the implementation of e-governance in CoC under JNNURM program, having external (direct impact) and internal (indirect impact) citizen interface, covers the following key functional areas:
- Registration and Issue Birth/Death Certificate
- Payment of Taxes (Property, Professional, Company and Misc.)
- Building Plan Approvals and Permits
- Geographic Information System for Town Planning & Urban Development
- Public Grievances, Redressal and Suggestions
- Procurement & Monitoring of Projects/Ward Works
- Finance & Accounting System
- Information Dissemination on Health Programs
- Modernization and Management Corporation Hospitals
- Solid Waste Management System
- Modernization and Management of Corporation Schools
- Council Management and other internal functions critical for effective citizen services

In view of the above, Corporation of Chennai has taken up the initiation of implementing E Governance as formulated by the GoI covering the current level of Computerization in the Departments, Processes to be Computerized, Process Reengineering, Technology Framework and Specifications, Project Implementation Plan, Total Project Cost including funding options, Change Management, Risk Management and Impact Assessment etc.

1.45   **Snapshot of Proposed Systems for e-Governance at Corporation of Chennai**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Suggested Applications</th>
<th>Modules Proposed</th>
<th>Services / Areas Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Revenue Management System</td>
<td>Property Tax, Professional Tax, Cash Collections Module</td>
<td>Registration of Property Tax, Assessment of Professional Tax</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Miscellaneous Revenue &amp; Receipts Module</td>
<td>Trade License</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inventory and Stores Management System</td>
<td>Inventory and Stores Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eProcurement System</td>
<td>eProcurement</td>
</tr>
<tr>
<td>3</td>
<td>Land &amp; Estate Management System</td>
<td>Land Acquisitions &amp; Managing Properties of Corporation</td>
<td>Land Acquisitions &amp; Managing Properties of Corporation</td>
</tr>
<tr>
<td>4</td>
<td>Accounts Management System</td>
<td>Asset Management, Integrated Payment Gateway, Petty Cash Receipts</td>
<td>Payments and Refunds (Suppliers / Vendor)</td>
</tr>
<tr>
<td>6</td>
<td>School Management System</td>
<td>School Management Module</td>
<td>e-Enrollment of Corporation Schools</td>
</tr>
<tr>
<td>7</td>
<td>Town Planning Management System</td>
<td>Building Plan Approval System</td>
<td>Online Building Plan Approvals</td>
</tr>
<tr>
<td>8</td>
<td>Council Administration System</td>
<td>Council Management</td>
<td>Council Management</td>
</tr>
<tr>
<td>9</td>
<td>General Administration System</td>
<td>Right to Information Module, Legal Case Monitoring Module</td>
<td>Information through RTI Act</td>
</tr>
<tr>
<td>10</td>
<td>EWS / IT Management System</td>
<td>Website Administration System</td>
<td>Portal Management &amp; website administration</td>
</tr>
<tr>
<td>11</td>
<td>Personnel Information System &amp; Payroll System</td>
<td>Workflow Management System</td>
<td>Workflow Management of IT enabled modules</td>
</tr>
<tr>
<td>12</td>
<td>Public Grievance Redressal System</td>
<td>E-Grievance Redressal System</td>
<td>Grievance Redressal for citizens and employees</td>
</tr>
<tr>
<td>13</td>
<td>File Tracking Systems</td>
<td>File Tracking System</td>
<td>File Tracking</td>
</tr>
</tbody>
</table>
Source: www.tn.gov.in

The above table 1.3 shows the various modules of ERP in E Governance and suggested applications for the modules and services covered in E governance.

1.46 Major benefits of implementing e-Governance at Corporation of Chennai as envisaged, are:

For Citizens of Chennai

- Improved access to Municipal Services to all citizens of Chennai
- Single-window access to various services of CoC.
- Better delivery of services and information.
- Quick service delivery at a decentralized level.
- Improved communications.
- Simplification of procedures.
- Streamlining of the approval process.
- Opportunity for greater participation in decision-making.
- Improved interaction with municipal government at different levels.
- Track the performance of CoC.
- Transparency and accountability in CoC functioning.
- Quick redressal of grievances.

For Corporation of Chennai

- Automation of Departmental Functions and citizen services
- Common information base across departments on a single integrated platform.
- Better co-ordination between departments and agencies.
- Improved communications.
- Creation of effective management information system (MIS).
- Better mobilization and utilization of resources.
- Improvement in revenue collection.
- Efficient citizen grievance redressal.
- Overall improvement in governance, delivery of services and citizen interface.
- Real time monitoring and reporting.
Objectiveness in decision-making.
- State wide data integration through the TNSWAN enabling the head office to extract the required information
- Single repository of data at State Data Center (SDC) which could be helpful for administrative purposes

1.47 For CoC Leadership and Management (Mayor, Commissioner, Standing Committee)
- Availability of standardized and meaningful MIS on timely basis across all depts.
- Appropriate and timely analysis and decision-support mechanism.
- Ability to monitor and track programs, services, and revenues effectively and on a timely basis.

1.48 Proposed E-Governance System for Corporation of Chennai

The proposed e-Governance system for Corporation of Chennai (To-Be Scenarios) is an endeavor to identify and propose the future IT initiatives of the corporation. All relevant technical architectures have been explained and also the functional features of the suggested IT applications have been discussed.

Therefore, The recommended applications for the implementation of e-Governance to attain efficiencies and synergies in the processes (both internal and external) in Corporation of Chennai, in order provide transparent and effective local government to the citizens of Chennai are mentioned below:

1. Revenue Management System (RMS)
2. Project & Works Management System (PWMS)
3. Land & Estate Management System (LEMS)
4. Accounts Management System (AMS)
5. Health Management System (HMS)
6. School Management System (SMS)
7. Town Planning Management System (TPMS)
8. Council Administration System (CAS)
9. General Administration System (GAS)
10. EDP / IT Management System (EDP ITMS)
11. Payroll & Personnel Information System (PIPS)
12. File Tracking System (FTS)
13. Public Grievance Redressal System (PGRS)

1.4 Benefits

The main objective of e Governance is to help Corporation of Chennai in strengthening and managing good governance by leveraging ICT to improve its internal processes to serve the citizens in an effective and efficient manner. e-Governance is a further step in this evolution that results in making the citizens a part of the process of governance through a consultative and inclusive approach.

**Expected benefits of the project can be listed as follows:**

- Ease in Information accessibility to all the stakeholders like Citizens, Councilor etc.
- Various citizen centric services like Online issuance of Birth / Death, Grievance & Suggestions handling, e-Procurement, Project/Ward works, various licenses, etc., can be easily accessible to the citizen.
- Shortened lead times on paper movement within the department.
- Reduction of time taken in issuing certificates, licenses and permits.
- Faster handling of public grievances
- Increased revenue to the Corporation through efficient system of collection of taxes.
- Better organizational planning, control and data analysis for simulation and future planning.
- On-line information retrieval of standing orders and administrative documents.
- Inter-departmental exchange of information like birth and death data with health and family welfare institutions and vice versa to avoid duplication of data entry.

The below table No. 1.4 shows the benefit examples of implementing E Governance project

**Some benefit example:**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Service Area</th>
<th>Expected Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Registration of Births and Deaths</td>
<td>Citizen can file online registration of birth or death certificate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase of service delivery channel in terms of CSC</td>
</tr>
<tr>
<td>2.</td>
<td>Issue of Birth/Death certificate</td>
<td>Online availability of certificates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More service delivery channel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Status tracking can be online</td>
</tr>
</tbody>
</table>
3. Assessment and collection of property tax
   Online collections of property tax
   Monitoring and tracking can be online providing transparency
4. Assessment and collection of professional tax
   Online collection of professional tax
   Ease of service and reduction of citizen visit

Source: Primary data

1.50 E Governance Assessment

Below given is the table No.1.5 showcasing the situation of e-Governance/IT initiative status at present against all services departmental wise

<table>
<thead>
<tr>
<th>Table No:1.5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functions</strong></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Birth/Death Certificate</td>
</tr>
<tr>
<td>Revenue</td>
</tr>
<tr>
<td>Payment of Taxes</td>
</tr>
<tr>
<td>Revenue</td>
</tr>
<tr>
<td>Revenue</td>
</tr>
<tr>
<td>Building Approvals</td>
</tr>
<tr>
<td>Town Planning</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4</th>
<th>Grievance &amp; Suggestions</th>
<th>Grievance Redressal for citizens and employees</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Procurement &amp; Monitoring of Projects</td>
<td>Legal Case Monitoring</td>
<td>Proposed</td>
</tr>
<tr>
<td>6</td>
<td>Finance &amp; Accounting System</td>
<td>Works</td>
<td>Proposed</td>
</tr>
<tr>
<td>7</td>
<td>Health Programs</td>
<td>Works</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5</th>
<th>Procurement &amp; Monitoring of Projects</th>
<th>Works</th>
<th>Works Management for Project/ Ward</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Finance &amp; Accounting System</td>
<td>Works</td>
<td>Inventory and Stores Management</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

| 7 | Health Programs | Finance | Payments and Refunds to Suppliers / Vendors | Proposed |

<table>
<thead>
<tr>
<th>8</th>
<th>Health Programs</th>
<th>Finance</th>
<th>Municipal Accounting</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Health Programs</td>
<td>Finance</td>
<td>Asset Management</td>
<td>Proposed</td>
</tr>
<tr>
<td>10</td>
<td>Health Programs</td>
<td>Finance</td>
<td>Processing of Payroll / Pension</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11</th>
<th>Health Programs</th>
<th>Health</th>
<th>Hospital Management &amp; Modernization</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Health Programs</td>
<td>Health</td>
<td>Booking of Burial Ground</td>
<td>Present</td>
</tr>
<tr>
<td>13</td>
<td>Health Programs</td>
<td>Health</td>
<td>Booking of Freezer Box</td>
<td>Present</td>
</tr>
<tr>
<td>14</td>
<td>Health Programs</td>
<td>Health</td>
<td>Booking of Mortuary Van</td>
<td>Present</td>
</tr>
</tbody>
</table>

| 15 | Health Programs | Health | Info. dissemination on Public Health & Family Welfare | Proposed |

| 16 | Health Programs | Solid Waste | Monitoring & Tracking of Garbage Collection | Present |

| 17 | Health Programs | Solid Waste | Monitoring of Vehicle Fuel Dispensing | Proposed |
1.51 Statement of the Problem

IT offers ample opportunities for the modernisation of public administration work. The public administration sector has been the target of much criticism all over the world. The reason is the same everywhere – taxpayers want to see the efficiently functioning and cheaper executive power. Chennai citizens is pronounced more clearly as the bureaucracy and work style inherited from the Soviet times are still deeply rooted in the society.

The improvement of services and culture immediately is seen everywhere: in the banks, insurance companies, even trade centres – the accomplishments that public institutions cannot boast yet. People keep asking why a bureaucrat cannot solve their problems, why they have to get information from another institution, or how many phone calls they have to make to have their problems solved. Also, the performance of public institutions raises serious doubts. Very few people trust in public institutions or in the effective use of their resources. Obscure, clumsily written reports, crammed with figures, do not add credibility to the public institutions in the public eye. The Government-established the Sunset Commission which set out the public administration reform guidelines to address these issues and outline certain public administration rules.

Therefore the driving force of the e-Government might be the application of business management for public administration purposes, i.e. IT use for more effective information management and the creation of improved relations with consumers, partners and suppliers. This type of public administration reforms will also help initiate decisions, their implementations and, most of all, co-operation of citizens with the government. The application of business models for public administration opens new huge vistas for close co-operation of citizens with public institutions, transparent management and proper accountability. It gives citizen absolutely new opportunities to co-operate and work with public institutions anytime and anywhere.

With the implementation of this concept, the development of e-commerce, society computerisation and use of Internet will be promoted. E-commerce promoters define the shortage of on-line purchases and lack of users as key reasons precluding the development of e-commerce. Regrettably, Chennai, Tamil Nadu online information is rather scarce: even some of
those companies, that have web pages do not renew information they have on a continual basis, therefore quickly it becomes useless. Hence, the close circle is formed – a relatively small number of users do not promote e-commerce and slow business does not produce more users.

Implementing the E-Government projects will create the Internet services that will facilitate easy access to public institutions. Certainly, very soon there will appear a relatively large number of users willing to receive Government services via digital channels and get familiar with these services along the way.

It is quite reasonable to suppose that Internet users and receivers of Government services on the Internet will soon expect to receive the same quality of services and from commerce. This means the sizeable increase of the number of customers and the demand of Internet services. The increase of customers and demand will lead to e-commerce growth and supply increase. It will encourage people who have no computers to purchase them and start using e-commerce services.

Thus, E-Government project implementation will help us to break the vicious circle, what will inevitably increase the demand and supply of Internet.

1.52 Need for the Study

An understanding of the factors that improve the quality of Citizen Service Delivery system and offer these services with optimal effectiveness and transparency. This study also aims that to allow data sharing across different departments, thus bringing about the efficiency in administration functioning, and to help different departments to improve their revenue collection efficiency. This gap and knowledge is tested empirically to examine the harness of the use of technology to create sense of achievement amongst employees and citizens. Even though the people are having positive attitude towards ERP Tools and E Governance. This study also aims to facilitate the decision making process of top Management by furnishing the right information at right time.

1.53 Scope of the study

Attitude and learning is by choice and not by chance. When all are equally qualified, it is the attitude that makes the difference. Earlier studies made emphasis on the attitude of employees and the people towards ERP based E Governance of individual and group. They also considered the contextual factors which make a person to learn and to use Information Technology tools for their career and for their day to day activities. It is therefore concluded that the starting pointing
in the discussion about the attitude towards implementation of ERP tools in ERP Governance is the motivational factors to use.

The thesis can be broadly divided in 4 sub sections as given below.

(i) **Management information system (MIS):** Management information system is envisaged to undertake Enterprise wide resource Planning approach, enabling Chennai Corporation to use various data in most optimal way and provide services to citizens in efficient and effective manner.

(ii) **Geographical Information system (GIS):** GIS is a boon for urban managers and can be used to bring in much needed effectiveness in city planning and its management. Main aim envisaged value while planning GIS at Chennai Corporation is the creation of decision support system to assist the administration in effective management of the Urban local body.

(iii) **Other IT applications:** In order to support the proposed MIS and GIS application, various IT management solutions are required such as RDBMS, Application server for MIS, Application server for GIS and Web server.

(iv) **Server side infrastructure:** Along with IT Management applications specified in above section, Chennai corporation would also require the basic Server Side Infrastructure to host various applications such as Database server, Application server, Web server and Domain server.

1.54 **Objectives of the study**

The objective of the thesis is to provide efficient and effective services to citizens and administrators by implementing ERP based solutions to enable Chennai Corporation processes and workflows.

- To Harness the use of technology brings simplicity in Governance through electronic documentation.
- To know the use of technology in conversion of Government mission in more responsible manner.
To understand the reduced paper work and increased communication speed and decreased communication time, error free thus the Government agencies become more responsive.

To analyze the morality and its elimination of immoralities, bribing and red tapism through E- Governance.

To improve the quality of Service Delivery System and offer these services with optimal effectiveness and transparency.

To know the data sharing system across the different departments, thus bringing about the efficiency in administration functioning.

To help different departments to improve their revenue collection efficiency through E-Governance.

1.55 Limitations

Due to time and resources constraints, wider sampling frame of entire Chennai corporation was not done. Sampling was done only from few Corporations under Chennai corporation in Chennai City region. The factors in choice of using Chennai corporation online web portal among sample done in 2013-2014 reflect the environment prevailing at that time.

1.56 Strategies for e-governance in India

1. To build technical infrastructure / framework across India: India lacks a full-fledged ICT framework for implementation of e-governance. Complete implementation of e-governance in India will include building technical hardware and software infrastructure. It will also include better and faster connectivity options.

2. To build institutional capacity: Apart from building technical infrastructure, the government needs to build its institutional capacity. This will include training of government employees, appointment or experts. Along with the government has also to create an expert database for better utilization of intellectual resources with it.

3. To build legal infrastructure: For better implementation of e governance, the government will need to frame laws which will fully incorporate the established as well as emerging technology. Changing technology has changed many pre-established notions, similarly the technology is growing and changing rapidly. It is important that the government
makes laws which incorporate the current technology and has enough space to incorporate the changing future technology.

4. To build judicial infra-structure: Overall technological awareness in current judges is very low. The judiciary as a whole needs to be trained in new technology. It benefits and drawbacks and the various usages. The judiciary may alternatively appoint new judges and setup special courts to deal the matters relating to ICT. The government can also setup special tribunals to deal with the matters relating with ICT.

5. To make all information available online: The government has to publish all the information online through its official websites. This can be facilitated through centralized storage of information, localization of content and content management. The information of government is public information, therefore the citizens are entitled to know every piece of information of the government, because the government is of the people by the people and for the people.

6. To popularize e governance: Literacy percentage in India is alarming. The Whole World is moving towards e – governance, but India still lacks in the literacy department. The people need to be educated and made e literate for e governance to flourish. There were very few e literates people in India is very low. The government needs to campaign for e governance, increase people’s awareness towards e governance. Government can only encourage people to go online if it can make people feel comfortable with e governance. This can done through educating the people about the advantages of e governance over physical governance.

7. To Centre state partnership: Indian setup is quasi federal. Therefore center and state and interstate cooperation is necessary for smooth functioning of the democratic process. This cooperation is also necessary for successful implementation of e governance. This cooperation shall extend to center state, interstate and inter department relationships. For the same the government can setup a central hub like the current government of India portal for accessing the information of all the organs of the central government and also all the state government. The state can cooperate with the Centre to create a national citizen database.

8. To set standards: Finally it is important to set various standards to bring e governance to the quality and performance level of private corporate sector. The government of India is currently working on standards management and has various drafts prepared for the
same. These standards include the following: Inter-operability standards, security standards, technical standards, quality standards.

1.57 Principles

General Principles

- All services delivered by the Government must be gradually placed on the Internet by 2005 (not including services where the physical presence of a public representative is a necessity). Delivery of services by the means of Internet for businesses will be a priority.
- With the creation of new ways of the delivery of services, former service delivery means should be left intact; it should be also assured that with the growth of the numbers of Internet customers, resources for the maintenance of the usual means of the customer services should be reduced.
- Non-digital services cannot be discontinued until its has been assured that all present or potential customer have access and know (or can otherwise) how to use new service delivery means.
- Public information must be easy to accede. To make the Internet an important and reliable information source all public information must be easy to accede on the Internet. It must be logically structured, with information research and the initial research window (according to the so-called ‘one stop shop’ principle) installed. Information preparation and submission system for consumers will be defined in the ‘Government Portal’ concept and given a priority status.
- Inquiries sent by e-mail should gain the same status as sent by ordinary mail – these inquiries should be processed in line with the same procedures. The inquiry might get no response only if the sender’s e-mail address is incorrect or due to the ‘spaming’ contents of the letter.
- IT introduction will inevitably change legal environment; it will inevitably result in the drafting of relevant legislation regulating e-Government activities and change of certain present laws in force as well as the development of by-laws (e.g. the above legislation on the dissemination of public information on the Internet and the recognition of the validity of e-mail and amended public procurement laws).
- The development of the new services of the Government should include their delivery through digital channels. The legislation submitted by the Government will present no
obstacles to the transactions in the e-dimension (e.g. no exclusive physical signature requirements or other restrictions).

1.58 Technicalities

- No priorities will be given to any technicalities, operational systems or software producers in the process of the implementation of the e-government projects. Functionality, security, scalability and price will be the key factors at play.

- Internet-based services should be easy to accede by popular and widely used protocols and facilities. Decisions concerning the type of services should be made according to consumer needs in the case of every individual project. The delivery of services should be ensured by at least one of popular protocols. Later, if needed, services can be made available by as many popular protocols as possible (e.g., WAP, WWW), thereby ensuring the qualitative access, better options for a customer to choose technologies available to him and equal opportunities for the development of technologies.

- Information should be structured and delivered through interfaces in the manner of making them freely accessible to a customer. These interfaces should run in line with generally accepted standards and require no use of commercial software.

- The Government will create conditions for business to use public information to create commercial services. Information must be delivered not only by customer interfaces (tailored for a final, individual consumer) but also by data flow interfaces (e.g. SQL interface). Hence it will be accessible for business aimed at additional commercialisation of the Government information. The Government will create conditions to use available public information for the development and implementation of commercial services.

- Information should be available in open formats. The document formats used by public institutions should not make information users purchase commercial operational systems or software. Only fully defined (with definitions available publicly) and free formats can be used.

- The E-Government projects can be developed on the basis of a diverse technical base under the guidance of various institutions with a view to different needs. The choice of the decision of an individual institution will not be regulated in the process. Projects in general and individually will have to meet standard requirements for the e-Government project interfaces. The exchange of information between projects should also be assured in conformity with relevant information security requirements.
The projects will have to be developed and implemented in view of available hardware and software. One must seek to utilise the available facilities and technology in the best possible way.

1.59 Information Security And Users Identification

- With the E-Government’s intake fast growing, the databases of public institutions will accumulate more information about citizens and many various aspects of their life. Therefore the E-Government projects will function smoothly only if people trust in the state, its institutions and the project management itself.
- Public institutions implementing the E-Government projects will have to conform to tight data security requirements with a view to ensuring only the sanctioned access to data.
- Authorised institutions will gain necessary approval to perform a project security audit and supply data security and technology consultancy to public institutions.
- The Public Key Infrastructure will operate for the identification of citizens in the future which will infallibly identify a person by his digital signature. These means are vital for the Government to disclose private information to the person it belongs to and deliver services to the right person who pays for them.
- Once digital signatures emerge in the Lithuanian market they will receive official approval in public institutions as soon as possible by providing information and services.
- The absence of the Public Key Infrastructure cannot be the reason for the failure to implement the e-Government projects. Wherever found acceptable, for reasons of security and user’s identification other instruments ensuring the user’s identification (e.g. special name and password registration) and a safe link between a server and a customer’s workstation (e.g. Secure Socket Layer) might apply.
- The Government will seek to link up the special purpose card projects developed by individual institutions. The universal citizen’s identification card should be developed in a co-ordinated way, integrating social insurance, patients’ fund certificates, identity card data as well as the digital signature.

1.60 Knowledge and Skills. Access To Internet

- The implementation and management of projects demand from public servants new knowledge and skills, primarily – a sound understanding of information technology, business and project management experience and skills.
o Relevant knowledge and skills must be made accessible to public servants:

o Public institutions will identify basic learning and consultation needs;

o Department of Information Technology will organise the effective exchange of knowledge and skills available in the public sector. The same department will have to select ‘the model centres’ – successful projects that might be used as models for the public administration sector.

o The public administration sector will co-operate with Universities consulting and modelling management changes.

o The public administration sector will have to stay in touch with business to keep up-to-date.

o One must install a system for the test of computer literacy as soon as possible. Public servant must not be employed unless they possess a proper computer literacy level. Present public servants must raise their computer literacy level (independently or assisted by organisations). Once the knowledge assessment system has been installed, their skills will be tested.

o The implementation of e-Government projects will not be effective if part of the society will not be able to access to governmental services. The situation like this is possible if part of the society will be computer illiterate or will not be able to afford access to the Internet.

o The Government will take measures to ensure the greater cohesion of society and equal opportunities of Lithuanian people to have access to the Internet (e.g. computerisation of schools and libraries and Internet kiosks). The in-depth plans of these measures are not the issue of this document. These issues will be covered in other Government documents.

1.61 E-Government Projects Implementation Terms And Management

✓ The implementation of e-Government projects should not be treated as ‘one night’ process or otherwise defined period of time. The process has already started: we see it as a long-term public administration transformation process. From a general point of view, it is a never-ending process. The Government’s involvement in the Internet must be a continuously renovating process.
✓ The head of every public institution will be personally responsible for his institution administration reform and making services available on the Internet.

✓ The general financing practise promoting the efficient use of funds will be adopted since allocations for the e-Government programmes will not be earmarked on a separate basis. Institutions will have to finance these projects from their own internal resources.

✓ We see the implementation of the e-Government as the creation and development of individual projects. The co-ordination of agencies and the strategic committee will help prevent the officialdom and fragmentation of agencies and misappropriation of their funds.

✓ The global practice shows that the implementation of e-government projects is expensive, though rewarding. Now and from now onwards the Government will not be able to allocate adequate funds for the implementation of the projects it planned. ‘The state-and-business co-operation’ will be given priority as a project funding model. Business companies using their own funds will (fully or partially) implement the e-government project and get invested money back from business transaction charges in conformity with the established plan (these transaction charges are covered either by a client or government).

✓ While planning to deliver services by digital channels, it will be necessary to introduce the payment scheme promoting the use of said services (e.g. cheaper prices, faster service speed and other facilities). Digital service delivery cannot be subsidised unless the subsidies to cover these services are lower than ones delivered by usual means.

✓ The Government, when acceptable, may discontinue services delivery functions in certain projects if the same services can be delivered by businesses. It is possible to turn to the outsourcing and hosting practise, fast spreading in the world.

1.62 The Integration Of Non-Government Projects

✓ It is clear that the effective and absolute co-ordination of the projects will be effected only in the institutions subordinate to the Government, though the key objective focuses on the Internet services delivery by all public institutions.
The Seimas (Parliament of Lithuania), President, Municipalities are the entities falling outside the political will of the Government, therefore their integration into the e-Government projects should be an expression of their voluntary political will.

The government shall by various means encourage non-governmental organisations to participate in e-Government projects. They shall have access to all information, knowledge, etc., which shall be available to public institutions.

The Government shall encourage non-governmental organisations implementing e-Government projects to comply with the general standards for the information exchange, thereby enabling the projects to contribute to joint efforts aiming at the delivery of quality services via the Internet.

E-Government information shall be easily accessible to facilitate the implementation of non-governmental projects. With this in mind the latter shall need to comply with the standards necessary for data protection and their interaction.

1.63 Department Of Information And Information Technology

A co-ordinator submits to the department the instructions, the department reports for the activities carried out to the co-ordinator. The department is responsible for:

- Technical services to be delivered to the strategic committee and the co-ordinator;
- Monitoring the implementation of the concept;
- Monitoring the implementation of concept instructions, standards and development of guidelines and their observance;
- Consultations to public institutions and support in developing e-business strategies;
- Arrangement of seminars and consultations for the executive specialists of the institutions concerned;
- Supervision of the conformity with the general regulations on information management (and information security); in co-operation with a co-ordinator preparation of manual on the standards of e-Government projects. It has to include all the mandatory requirements for e-Government projects and standards on mutual compatibility of the projects;
Preparation of necessary legal acts for the implementation of the concept and presentation for Government consideration;

Co-ordinating the establishment of general infrastructure and application development and use in public institutions.

1.64 National Inspectorate For Data Protection

- Inspectorate for data protection in co-operation with a co-ordinator and Department of Information Technology shall prepare plans for the protection of strategic data used in e-Government projects;
- In co-operation with the Department of Information Technology the Inspectorate on Data Protection shall draft recommendations and instructions which are mandatory in terms of e-Government projects. It shall exercise control over their implementation.
- It shall carry out checks on data protection and audits.
- It shall deliver consultations to public institutions on data protection issues.

1.65 Public Agencies And Institutions, Public Funds

Partakers of public administration sector are responsible for the development and expansion of their organisations’ e-business strategies. Namely for:

- The development of e-business models;
- Ensuring compliance with the standards and policies adopted;
- Delivery of services available through public and other portals;
- Delivery of electronic services;
- Taking over the recommendation from other projects;
- IT knowledge and improvement of skills.

1.66 Non-Governmental Organisations

Municipalities and other non-governmental organisations shall be responsible for the delivery of services to the citizens and business via the Internet. The government shall not compel or in any other way influence, except for setting a good practice example, non-governmental institutions to transfer their delivery of services to the Internet.
A Co-ordinator shall show an initiative by inviting non-governmental organisations to develop e-Government projects and shall deliver to the governmental institutions all the information available in terms of project implementation.

**Business**

Participation of business in the development of Concept and its further implementation is and will remain among the most important guarantees for the success.

Possible participation of the commercial organisations can take the following form: Delivery of services directly or through co-operation with public institutions. This includes commercialisation of public services, like adjustment of a basket of services to special needs and creation of value added.

- ✔ Showing an example of good practice to public institution through the introduction of e-business models.
- ✔ Cooperation with public institutions by creating an infrastructure and services for their needs joint work in implementing e Governance projects.

**CHANGES**

Changes related to the implementation of e-Government projects (modernisation of public administration) will be very significant. Application of information technologies and use of their possibilities will strongly change our understanding about administration, ways and means of control, the ways of reporting for the results and assessment of the efficiency of staff work.

Changes in understanding will strongly effect private and public institutions. Changes should be significant both in client service field and information management as well as decision making areas. The following changes are likely to take place.

**For Citizens**

The downturn of prices for using the Internet and hardware/software, their availability speedily change life styles of many people. New services are offered, the existing services are delivered using new methods. Right application of information technologies will allow establishing:

- ✔ Better access to the information and services;
Better delivery of services via different channels;

Distribution of services according to market demand, namely by responding to the needs of various target groups;

More efficient reaction to clients notifications concerning the quality and content of services;

Grouping of services according to life cycles and general events;

Involvement of users into the restructuring and improvement of services.

Application of information technologies and emerging possibilities to deliver government services via electronic channels opens wide avenues for better services of customers. A necessity to wait in queues and to arrive to a public institution is no longer needed.

This does not require adjusting to the office hours of various public institutions as the services are delivered round the clock seven days a week from everywhere. Citizens shall have access to services from public institutions at the time and place of their convenience as all these possibilities are opened via Internet.

**For Business**

Implementation of e-Government plans will create new possibilities to raise the efficiency of business to government communication. The aim will be to increase excommunication between business and governmental institutions via Internet to the extent possible, that means any time convenient or a businessman without any time waste.

However these changes will call for new challenges in business world. Information technologies considerably, sometimes radically, change business environment – principles of work organisation, understanding of teamwork and methods of reaching a customer and ways of goods purchasing. A notion of “production” in many cases is also changing.

Implementation of e-Government will increase a demand for services offered on the Internet in Lithuania. The customers will assess their quality of services delivered via the Internet, convenience and will demand new better quality form Lithuanian business community offering services on the Internet, new thinking and additional investment. European and American business has already gone through changes like these and has accommodated itself to it to a lesser or greater extent. This can be, however, a difficult challenge for the Lithuanian business, though reorientation results will allow to simpler and more efficiently participate on the global markets of goods and services.
For Public Administration

For public administration e-government is at present and will remain a tool for the implementation of public administration reform. Its ideological foundation is orientation towards a customer and application of business models in the daily work of public institutions, as this can be efficiently achievable through the use of information technologies.

More transparent public administration, personal responsibility of civil servants, clear cut reporting system, transparent decision making mechanisms – all these are just a few examples of the benefits directly related with administration.

Implementation of e-Government projects will allow public administration to introduce significant structural changes. Administration structure will change better quality services and higher production capacities will be demanded from public servants. The implementation of the projects will try avoiding increase in payment funds for the staff, but would rather be done through the redistribution.

Implementation of the projects will be a great challenge for public administration sector. Inevitable difficulties will emerge in the fields of changing models of decision making, insufficient skills, and problems of information and communication infrastructure. Public institutions will have to closely co-operate with private sector by creating business models, infrastructure and by providing services to end users.

No doubt these goals will demand substantial public investment. Project financing will require to find new alternative financial models especially with a view to involve business into co-operation with the public sector.

Public administration sector will need to put lots of efforts to become adjusted to all these changes, however the results to be achieved will excessively pay off efforts and resources invested

1.67 ORGANISATIONAL STRUCTURE OF THE IMPLEMENTATION OF E-GOVERNMENT CONCEPT

Chart No:1.1.3 shows the organizational structure of the implementation of e Governance Concept and the delegation of duties and responsibilities of the employees working in Chennai Corporation under E Governance
1.68 Scheme of Chapterisation

The thesis is organised as follows.

Chapter I - The first chapter covers introduction with a brief outline of E Governance, the research background, significance of the study objectives and limitations of the study.

Chapter II - The second chapter covers Research Methodology, Research design, sampling techniques, Data collection, Statistical tools and hypothesis tools of the study.

Chapter III - The third chapter deals on the Review of Literature connected to the E Governance and Attitude of respondents towards E Governance.

Chapter IV - The fourth chapter deals on the concepts relating to the E governance and the attitude of the respondents towards E governance.

Chapter V - The fifth chapter deals on the collected data pertaining to the employees working in Chennai corporation and the respondents from the general public with various
statistical tools for analysis and for interpretations in this Chapter Part I deals on descriptive statistics and Part II deals on Inferential statistics, Correlation, Regression, Factor analysis, Chi square test were used to find the major factors which influence the employees towards IT tools in their career.

Chapter VI - The sixth chapter includes a brief summary of the whole thesis. Based on the facts analysed, certain findings have been arrived. Some suggestions regard to the attitude of employees and the General public towards ERP tools in E governance listed for promoted dynamic E governance Culture in Chennai city.

Chapter VII - The seventh chapter deals with Conclusion.

Chapter VIII - The eighth chapter has Appendix which includes References, Bibliography and Questionnaire.