CHAPTER – 3

REVIEW OF LITRETURE & CURRENT SYSTEM
3.1 Various E-Governance systems

India has been harnessing the benefits provided by the Information & Communication Technologies (ICT) to provide integrated governance, reach to the citizens faster, provide efficient services and citizen empowerment through access to information. The aim is to redefine governance in the ICT age to provide SMART GOVERNANCE. Several significant initiatives have been taken at the Centre and the State level in this direction.

At the Central level, the government has extensively promoted the use of IT in managing its internal processes and has drawn up a ‘Minimum Agenda of e-Governance’. Further Ministries / departments have provision of 2 to 3 percent of their annual budgets to be spent on IT related activities. The government has enacted IT Act 2000 which provides legal status to the information and transactions carried on the net.

Several State Governments have also taken various innovative steps to promote e-governance and have drawn up a roadmap for IT implementation and delivery of services to the citizens on-line. The applications that have been implemented are targeted towards providing G2B, G2C and B2C services with emphasis on use of local language.
Project: Bhoomi

Description: The Department of Revenue in Karnataka State has computerized 20 million records of land ownership of 6.7 million farmers in the State. Previously, farmers had to seek out the Village Accountant to get a copy of Record of Rights, Tenancy and Crops (RTC) – a document needed for many tasks such as obtaining bank loans. There were delays and harassment. Bribes had to be paid. Today, for a fee of Rs. 15, a printed copy of the RTC can be obtained online at computerized land record kiosks (Bhoomi centers) in 177 taluk offices. This system works with the software called “BHOOMI” designed fully in-house by National Informatics Center, Bangalore. The Department of Information Technology, Govt. of India has embarked upon a major programme to rollout Land Records Computerization in several States of the country.

End Users/Beneficiaries: Rural People

State where Implemented: Karnataka

http://www.revedept-01.kar.nic.in/Bhoomi/Importance.htm

Project: e-Seva (electronic Seva)

Description: Launched on the 25th of August 2001, electronic seva (e-Seva) is the improved version of the TWINS project launched in 1999, in the twin cities of Hyderabad and Secunderabad in Andhra Pradesh. There are currently 36 eSeva centres spread across the twin cities of Hyderabad and Secunderabad and Ranga Reddy district, operating from 8:00 am to 8:00 pm every day and between 9:30 am and 3:30 pm on holidays. 70 centers are in operation at different municipalities covering thirteen districts. eSeva centres offer 118 different services like payment of utility bills/taxes, registration of births/deaths, registration of applications for passports, issue of births/deaths certificates, filing of Sales Tax returns, Trade licenses of MCH, B2C services like payments of Tata Teleservices, Reliance, sale of Airtel Magic cards. These services can be availed at any counter in the centre and at any place in the city. 21 more services like railway reservations, TTD services, bill payments of Airtel, Hutch etc. are in the pipeline. Though the e-Seva had a very lukewarm response from the
citizens, the initiative has picked up tremendous confidence on the way and has so far netted a thumping collection of close to Rs 2,000 crore (February-end 2003) from a meagre collection of Rs 43 lakh in August 2001. The government has rolled out the project to other parts of the state, including rural areas like the West Godavari district.

**End Users/Beneficiaries:** Populace

**State where Implemented:** Andhra Pradesh (Hyderabad and Secunderabad and Ranga Reddy district)

www.esevaonline.com; www.ap-it.com/eseva.html; www.westgodavari.org

**Project: CARD**

**Description:** The Computer-aided Administration of Registration Department - CARD in Andhra Pradesh is designed to eliminate the maladies affecting the conventional registration system by introducing electronic delivery of all registration services. CARD was initiated to meet objectives to demystify the registration process, bring speed, efficiency, consistency and reliability, substantially improve the citizen interface etc. Six months following the launch of the CARD project, about 80% of all land registration transactions in AP were carried out electronically. Since 60% of the documents, Encumbrance Certificates (ECs) and certified copies relate to agricultural properties, the success of the CARD project has great benefit for the rural farming community. CARD is operational at 387 Sub-registrar offices in the entire state of Andhra Pradesh since 1998.

**End Users/Beneficiaries:** Populace

**State where Implemented:** Andhra Pradesh

http://www.ap-it.com/cards.html
CHAPTER – 3 REVIEW OF LITERATURE & CURRENT SYSTEMS

Project: FRIENDS

Description: Fast, Reliable, Instant, Efficient Network for the Disbursement of Services is part of the Kerala State IT Mission. FRIENDS counters handle 1,000 types of payment bills originating out of various PSUs. The payments that citizens can make include utility payments for electricity and water, revenue taxes, license fees, motor vehicle taxes, university fees, etc. Firewalls safeguard data from manipulation. The application has provisions for adding more modules and for rolling back incorrect entries without affecting the database even at the user level. One important feature of FRIENDS is a provision for adding more modules and a queue management system.

End Users/Beneficiaries: Populace

State where Implemented: Kerala

http://www.friendscentre.net/

Project: Gyandoot

Description: The Gyandoot project was initiated in January 2000 by a committed group of civil servants in consultation with various gram panchayats in the Dhar district of Madhya Pradesh. Gyandoot is a low cost, self-sustainable, and community-owned rural Intranet system (Soochnalaya) that caters to the specific needs of village communities in the district. Thirty-five such centers have been established since January 2000 and are managed by rural youth selected and trained from amongst the unemployed educated youth of the village. They run the Soochanalayas (organized as Kiosks) as entrepreneurs (Soochaks); user charges are levied for a wide range of services that include agricultural information, market information, health, education, women’s issues, and applications for services delivered by the district administration related to land ownership, affirmative action, and poverty alleviation. Kiosks are connected to the Intranet through dial-up lines, which are soon to be replaced by wireless connections using CorDECT technology. The Soochanalayas have been equipped with Pentium multimedia color computer along with dot matrix printers. The user interface is menu based with information presented in the local Hindi language and the features of the Gyandoot software are continuously being updated.
End Users/Beneficiaries: Rural People

State where Implemented: Madhya Pradesh

Awards/Appreciation: Stockholm Challenge Award 2002; CSI National IT Award

http://www.gyandoot.nic.in

Project: VidyaVahini

Description: This portal provides the opportunity for schools, teachers and students all across the nation, to express and share their creative and academic potential via the internet. The portal aims at creating such an environment by providing facilities for Content Development, Content Deployment and collaboration. Shiksha India is a non-profit organization launched in December 2001 to equip schools with the 5 Cs: Computers, Connectivity, Coaching (teacher Training), Content and models of Commercial sustainability. Its mission is to spread better education, uniform quality of education across India to develop their creativity and problem solving skills. By providing computer literacy, Shiksha strives to increase the earning capacity, reduce information arbitrage in rural India and promote entrepreneurship. Shiksha India is working in partnership with The Ministry of Information Technology in the project Vidya Vahini and Ministry of Human Resources under the CLASS scheme which aims to connect 60,000 schools (approximately 20 million students) across the country in next five years.

http://www.vidyavahini.ernet.in/content/shiksha.htm

Project: LOK MITRA (Integrated Citizen Service Centre / e-Kiosks ICSC)

Description: Lok Mitra is the first of its own kind of Electronic service in the state of Rajasthan. It aims to deploy Information Technology for the benefit of the masses. It is a one stop, citizen friendly computerized centre located in the heart of the city at Government Hostel, Jaipur. This has provided relief to a common
man as he gets efficient services through IT driven interfaces at a single window. It is an e-governance project in which the computer server is linked to different Departmental servers through Dedicated Leased Line & Dial-up Network with multiple encounters, which can handle all services. It has facility of making payments through Internet using Credit Card.

**End Users/Beneficiaries:** Populace

**State where Implemented:** Rajasthan

http://www.rajasthan.gov.in/it/eg/lokmitra.shtm ; http://www.lokmitra.gov.in

**Project: Mahiti Shakti**

**Description:** Launched in 2001, the portal operates like a single window through which the citizens can access information related to all aspects of the government’s functioning, various benefit schemes and services ranging from obtaining ration cards to getting sanction for old age pension. Anyone who wishes to avail the benefit has to go to his/her nearest designated STD/ISD kiosk, submit the necessary documents to the Info Kiosk owner and fill in the required form online. For online submission of application, the Info Kiosk owner charges Rs. 10 for the application form and Rs 20 for submission. The taluks of Halol, Kalol, Santrampur, Jambughoda, Ghogamba, Kahmpur, Lunawada, Morwa and Shahera have such infokiosks.

**End Users/Beneficiaries:** Populace

**State where Implemented:** Gujarat

http://www.mahitishakti.net/
Project: DRISHTEE-Connecting India Village by Village

Description: Drishtee’s software platform enables e-governance and provides information about and access to education and health services, market-related information, and private information exchanges and transactions. Drishtee offers its network platform to any service provider who wishes to market its range of services to rural India by plugging their application in with Drishtee’s s/w offered directly at the village level. Thus, the Drishtee offering is wide in scope and highly scalable. It aims to be the ’window to the world’ for Indian villagers. Drishtee services not only provide financial benefits in terms of reduced costs and increased incomes, but also other social benefits like access to education and health information. Drishtee kiosks provide viable employment opportunities for unemployed rural youths and help stem rural-urban migration.

Drishtee is an organizational platform for developing IT enabled services to rural and semi-urban populations through the usage of state-of-the-art software. Using a tiered franchise and partnership model, Drishtee is capable of enabling the creation of approximately 50,000 Information Kiosks all over India within a span of six years. These kiosks would potentially serve a market of 500 million people, with aggregate discretionary purchasing ower of Rs. 100 billion (Rs. 10,000 crores). In less than two years, Drishtee has successfully demonstrated its concept in over 90 kiosks across five Indian states. It is a state-of-the-art software which facilitates communication and information interchange within a localized intranet between villages and a district center. This communication backbone has been supplemented by a string of rural services for example, Avedan, Land Records, Gram Daak (mailing software), Gram Haat (virtual market place), Vaivahiki (Matrimonial), Shikayat (online grievance redressal), Mandi Information System and a host of other customized services.

These services are provided through Drishtee in a village (or a group of villages) by a local villager, who owns the kiosk after having it financed through a Govt. sponsored scheme. The employment thus generated leads to a new breed of IT literate generation (45,000 kiosk owners by 2003) that can pay for their meager loans (not more than 75K) with their earnings (reasonable to high) and become a role model for the younger generation.
End Users/Beneficiaries: Rural and semi-urban people

States where Implemented: Haryana, Punjab, Madhya Pradesh, Gujarat, Orissa

Awards/Appreciation: Social Enterprising Award 2002

http://www.drishtee.com

Figure 3.1 ICT @ Gujarat Year over Year
3.2 Current E-Governance System for educational Sector

One such e-governance system for educational institutions — the M-Star Education Expert System — has been piloted in scores of schools in India. This system currently runs in a variety of schools and colleges in the country.

M-Star has been developed by MGRM NET after a deep study of educational systems. It is highly flexible in that it can apply to any educational system and yet be customized to a very high degree to fit in with all the required parameters and diverse needs of an institution.

It takes the life cycle approach and works all the way up the education chain — from kindergarten right up to the university level — for all kinds of curriculum and structures. The system bridges the gap between different stakeholders in a school, such as students, parents, teachers, and principal and education administrators.

For administrators like school boards and education directorates, which have to keep tabs on the functioning of many schools, M-Star offers immense value to monitor academic performance of individual schools as well as impact of schemes like mid-day meal or Sarva Shiksha Abhiyan (Education for All Campaign)

The application runs on proprietary OmVcard or an Online Multi-domain Value Card, costing just a few hundred rupees. Every child and staff member are given the OmVcard which they can insert into any computer where the application is loaded.

Incidentally, the card can be used to check the oft-quoted issue of teacher truancy. Teacher performance in a ‘single teacher’ school can be monitored by his supervisor remotely, not merely by looking at his or her attendance records, but by gauging the effectiveness of teaching as borne out by the academic performance of the pupils.

Ultimately, if the Education Expert System gets linked to other national e-governance systems, such as the national ID project headed by Nandan Nilekani, then the possibilities are endless.
It could analyze the reasons of dropping out from the system and the teachers become more accountable. The Right to Education could thus become a reality through technology.

ICT has played a major role in reducing operational inefficiency and improving decision-making in many areas of governance. An integrated "Higher Education Service System" is one such concept that can empower the governing bodies to administer the progress of the education plan in the whole country and serve various stakeholders in a much better manner.
3.3 Technical Standards and E-Governance Architecture

3.3.1 Technical Standards

While implementing the Interoperability Framework, the emphasis should obviously be on ‘interoperability’. Standardization in technology and coordination with Government decisions/legislations can achieve this. In general, adherence to some prescribed guidelines and principles should result in a more efficient Interoperability Framework.

The following guidelines and recommendations are considered appropriate to use while selecting Standards:

**General Requirements:**

- The cost should be low for usage.
- It should be adopted on the basis of open decision-making process
- No obstacle to use any version of the standard
- Use of extensions of any adopted standards should not be allowed

**Industry Standards:** The specifications adopted should be either globally recognized standards or existing de-facto industry-standards.

**Open Standards:**

To the extent possible, select widely adopted open standards In place of their propriety alternatives. Adoption of open standards cannot only significantly contribute in achieving interoperability but can allow flexibility in the selection of technology and solutions. It does not bind the user to a particular vendor or technology. Compatibility with open standards should be one of the major criterions for selection of software.
Vendor Neutral Products:

The specifications adopted should be vendor neutral as far as possible.

Limited Number of Specifications:

For any Interoperability Domain, the number of allowable specifications should be limited, as far as practicable and without compromising the overall objective of interoperability, in order to minimize the cost and complexity to support these specifications.

Alignment with Internet:

The specifications should be aligned with Internet standards as the Internet is a primary channel for delivering E-Government services.

Global Initiatives:

The specifications adopted should take due notice of similar global initiatives, demonstrating good practices.

New versions:

Versions of standards may need to be revised as new functionality is introduced. Special attention should be paid to ensure backward compatibility to minimize the impact of transition to a new version of a specification, thereby facilitating continued interoperability.

Version Selection:

The selected version by the user need not be the latest available version; this is because the selected version may meet the functional requirements.
3.3.2 e-Governance Architecture

a. Reusability

A large number of E-Governance applications developed in isolation, resulted in Self-contained islands of information. Every application followed its own standards with the main objective of delivering process-centric results irrespective of other applications. Hence, at the outset there is a need for an architecture that is aimed at reuse and customization.

Software reuse must become a key part in the software architecture. The continuing need for speeding up the software development life cycle and reducing the cost of development to manageable proportions exists in all large software projects. Component ware Architecture enables efficient reuse of existing application assets, faster deployment of new applications, and improved responsiveness to changing business needs. Reusable software components are the building blocks that make a system able to respond quickly to change. Systematic techniques for reuse adoption must therefore be enabled. Planning for reuse must begin at the architecture stage itself. In short it delivers the much needed openness and flexibility. A central repository of reusable components provides foundation to this concept.

b. Middleware and technology standards

There is a need to introduce the concept of middleware and technology standards as a tool to develop integral, scalable and robust E-Governance solutions, while employing multiple solution providers. The middleware should support processes involving multi-department and multi-agency workflows. For this purpose, it is necessary that the different department offices and also external agencies are interconnected and share the same underlying back-end
databases and applications. The middleware also should be able to facilitate integration with legacy systems.

Middleware needs to provide services such as identification, authentication, authorization, directories, and security to all applications. By promoting standardization and interoperability, middleware will make advanced network applications much easier to use. The key middleware components are (a) Web Application Server, (b) Inter-application communication and messaging and collaboration software (c) Language and data interchange standards.

c. Service-Oriented Architecture (SOA)

Service-Oriented Solutions: Applications must be developed as independent sets of interacting services offering well-defined interfaces to their potential users. Similarly, supporting technology must be available to allow application developers to browse collections of services, select those of interest, and assemble them to create the desired functionality.

A service is generally implemented as a coarse-grained, discoverable software entity that exists as a single instance and interacts with applications and other services through a loosely coupled (often asynchronous), message-based communication model.
The Architecture of e-Governance

**RECIPIENT**
- Citizens, Businesses, Public servants, NGOs, etc.

**CHANNEL**
- Mobile phones
- Digital TV
- Call centres
- Kiosks
- PCs
- Teleconferencing

**PROCESSING**
- Management Support System
- Basic Data System
- Office Automation

**SOURCE**
- Government data

**INTERMEDIARIES**

**figure:** Figure 6.3 Architecture of E-Governance
3.4 Platform for E-Governance Systems

E-governance Phases

As per e-Governance categories, there are following four phases:

a) **Information**

b) **Interaction**

c) **Transaction**

d) **Transformation**

![Figure: Phases in e-governance](image-url)
a) Information

In the first phase e-Governance means being present on the web, providing the external public (G2C and G2B) with relevant information. The format of the first government websites is similar to that of a brochure or leaflet. The value to the public is that government information is publicly accessible; processes are described and thus become more transparent, which improves democracy and service. Internally (G2G) the government can also disseminate information with static electronic means, such as the Internet. This phase it is all about information. From a website to a site with all relevant government information available to the public, in order to improve transparency in democracy.

b) Interaction

In the second phase the interaction between government and the public (G2C and G2B) is stimulated with various applications. People can ask questions via e-mail use search engines for information and are able to download all sorts of forms and documents. These functionalities save time. In fact the complete intake of (simple) applications can be done online 24/7. Normally this would have only been possible at a counter during opening hours. Internally (G2G) government organizations use Local Area Networks (LAN), intranets and email to communicate and exchange data. The bottom line is that more efficiency and effectiveness is achieved because a large part of the intake process is done online. However, we still have to go to the office to finalize the transaction, by paying a fee, handing over evidence or signing papers. The use of electronic communications tools speed up the internal government processes.
c) Transaction

With phase three the complexity of the technology is increasing, but customer (G2C and G2B) value will also be higher. Complete transactions can be done without going to an office. Examples of online services are filing income tax, filing property tax, extending/renewal of licenses, visa and passports and online voting. Phase three is mainly complex because of security and personalization issues – e.g., digital (electronic) signatures are necessary to enable legal transfer of services. On the business side the government is starting with eprocurement applications. In this phase, internal (G2G) processes have to be redesigned to provide good service.

Government needs to create new laws and legislation that will enable paperless transactions with legal certification. The bottom line is that now the complete process is online, including payments, digital signatures etc. This saves time, paper and money.

d) Transformation

The fourth phase is the transformation phase in which all information systems are integrated and the public can get G2C and G2B services at one (virtual) counter. One single point of contact for all services is the ultimate goal. The complex aspect in reaching this goal is mainly on the internal side, e.g. the necessity to drastically change culture, processes and responsibilities within the government institution (G2G). Government employees in different departments have to work together in a smooth and seamless way. In this phase cost savings, efficiency and customer satisfaction are reaching highest possible levels.
Figure 6.2 Gujarat’s E-governance Framework
Figure: Contextual View of E-Governance Portal
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Figure: Solution Architecture of E-Governance Portal
3.5 Challenges for development

While adoption of ICT in government processes and moving toward e-government carries a number of benefits, several significant issues emerge as well.

**Privacy and Security**: Privacy and security of information is a priority issue. ICT offers unprecedented opportunities to gather and store data and information about citizens. Comprehensive and detailed information profiles can accumulate, which can be easily accessed, analyzed, merged and shared. Confidential information about individuals and aspects of individuals' lives is routinely exchanged through channels such as the Internet, by individuals themselves and by others, official and private sector. Such information can include financial information, criminal records, personal life information, and political preferences. Devising and implementing clear and effective measures for data security and protection of privacy is critical and indispensable. Such measures would prevent a government big-brother scenario as well as unauthorized parties gaining access to secure information. It is likely that citizens would actively accept communication of sensitive information through electronic channels only when they are confident that communication infrastructure and networks are reliable and secure. At the same time, information security becomes a concern of government as government processes move online, putting the functioning of government and its systems at potential risk, including potential exposure of sensitive and confidential government information and data. Privacy and security of information will become ever more important as more and more government processes become electronic and as e-government moves toward integrated, seamless ICT systems, locally and globally.

**Information Management**: As e-government progresses, managing “content” become an increasingly important issue. As ICT systems increase effectiveness in gathering and storing data and information, attention is required as to the actual nature of information and data, and processes for its actual capture,
processing, exchange and application. In many respects, government is an information and knowledge industry, information and data is a resource, and government employees are information and knowledge workers. Sound information and knowledge management strategies are needed to ensure that information and knowledge resources and information and knowledge skills are managed appropriately and effectively.

The many dimensions of the information and knowledge that government possesses must be considered with regard to the types of information governments possess, such as that employed in basic government functions and in operating administrative systems; in policy and decision making; and in providing services and benefits to citizens. Basic issues of compatibility and interoperability within and between and within government units must be a consideration.

**Citizen Participation:** E-participation must be a consideration in e-government – engaging citizens in government not merely as customers of agencies or consumers of services, but as clients and constituents of government entities. E-government offers expanded opportunities for strengthening relationships between government and citizens and for citizens to become engaged in the formulation and implementation of public policy and public services. E-government can establish new electronic mechanisms through which citizens can comment in the development of policy, and provide input and feedback related to provision of government services. Online communication, such as online polls and surveys, consultation facilities, and bulletin boards and discussion groups are some obvious possibilities. In efforts to strengthen government and improve the relevance and quality of government processes and services, a central purpose in e-government, citizen participation and the ability of citizens to interact with government is key.
Intra-Government Communication: Government becoming more efficient and effective in the ways it communicates within is critical in efforts to improve and strengthen government, and would be a key focus of establishing e-government. Integration of government units and networking in government toward seamless integration of processes and service provision would be an objective of e-government. As governments move toward implementing e-government practices, modalities for achieving networks would require significant attention. An ideal of collective government and an open, interactive, multidisciplinary and collaborative government style obviously would require significant resources as well as major changes and reform in the practice of government.
3.6 Comparative study of e-governance systems

Initiative Projects by Gujarat

**GSWAN**
- Connecting 7 Districts on 8 Mbps, 18 Districts on 4 Mbps and 1 District with 2 Mbps to State center at Gandhinagar using leased circuits provided by BSNL, Reliance and Tata Tele Services.
- Connecting 225 Talukas to 26 District HQ on 2 Mbps leased circuits.
- Interconnecting more than 3600 District and Taluka level GoG offices.
- Average 70 departmental offices at District locations and 5 offices at Taluka Locations have been connected to GSWAN.
- Facilitates uninterrupted and easy IP based Video-conferencing between various GoG office.
- Over 20015 E-mail IDs created for Government officers all over the state.
- Over 255 Websites are hosted for various departments.
- 14 Mbps Internet Bandwidth terminated at GSWAN State Centre among 5000 Internet Users.
- Facilitates uninterrupted and easy IP based video-conferencing between various GoG offices.

**Swagat Online**
Swagat project is been hosted on every 4th Thursday of the month in the presence of Chief Minister Narendra Modi in the Jansampark Department of his Chief Minister Office. In his presence with all the department heads and the district representatives, the grievance of the common man are addressed through Video conferencing and solutions are provided online to the common man immediately. All the department heads try to find the solution to the common man’s problem in the best possible way. Of the Applications received, justice to 92.45% is done by the mutual united initiative since the implementation.

**E-Dhara**
E-Dhara enchances complete Computerization of Land Records across the state. Elimination of Manual Records, computer controlled mutation process and self sustainability are the leading objectives of e-Dhara system.
Health Management Information System

HMIS is to build trust and confidence for the general hospitals in the hearts of the citizen of the state by providing efficient and quality health services through IT application. They streamline the Operations with improved Patient care and effective Administration and Control. HMIS project was conceptualized by the department of health & family welfare to ensure the quality health care by IT application to provide standard clinical & diagnostic tools, hospital management tools and integration of management information at the state level so as to ensure online review & monitoring. The Project is undertaken by Department of Health and Family welfare.

E-City

The Project undertaken by Revenue Department of GOG, Ahmedabad Municipal Corporation is the first Municipal Corporation in India to facilitate better performance of the delivery of municipal services like birth and death registration, building plan, primary health and education, city cleanliness, water supply, sewage, road, street-lights, parks and garden through e-governance to citizens of the city. For this Ahmedabad Municipal Corporation has established six City Civic Centers located in five zones of Ahmedabad city and also created forty-three ward civic offices all these interconnected via intranet/ Internet connectivity. Citizens have the facility to pay through net/bank/ cyber cafe.

E Gram – Vishvagram

On the Birthday of Subhash Chandra Bose on 23rd January, CM Narendra Modi launched the e-Gram Vishwagram Project from Haripura, the place where Subhash Chandra Bose had given call for freedom. This Project Initiates e-Gram Project connecting 13716 Gram Panchayats and 6000 Citizen Common Service Centres as a part of the eGram connectivity Project. Some features of e-Gram Project are Video conferencing facilities at all villages, issuing the documents and
certificates, application forms for various development and welfare schemes. Also 7/12 certificates to the farmers from panchayats. VSat communication technology based broadband connectivity, free of cost communication between panchayats, common service facilities, advantages of Internet and cyber connectivity and electricity-telephone bills, visa, E-postal services and many more facilities are provided through the online e-Gram project webs

**Home Department**

The portal of Home Department – www.home.gujarat.gov.in – covers total 70 individual websites, including that of the Home Department, all its HODs like Anti Corruption Bureau, Prohibition & Excise, IG Prisons etc. and Gujarat Police (DGP, Commissionerate, DSPs, Armed Unit, Training, and Human Rights etc.), Port & Transport Department, Commissioner Transport and all RTOs & ARTOs. It is completely Dynamic (Unicode based) Web-Portal & Websites based on CMS (Content Management System) and having Online Updating Facility, User Interaction to the various Applications and Database, Search Engine enabled features, Online Complain and User Feedback facility.
3.7 E-governance – Major Issues in India

Countries like India people are poor and infrastructures are not up to the mark. Under such condition it becomes very difficult to provide government services to the people. There are number of reasons for that-

3.7.1 Poverty:
Internet access is too expensive for the poor in developing countries like India. Installing the necessary telephone lines needed for internet or email access is equally unaffordable in most poor countries. It is very expensive to gain internet access in India: it may cost about Rs25 per hour in cities and Rs50–75 per hour in rural areas.

3.7.2. Technical illiteracy:
There is general lack of technical literacy as well as literacy in countries like India, the correlation between education level and use of electronic means or Internet and other ICT means are quite significant.

3.7.3 Language Dominance:
The dominance of English on the internet constrains the access of non-English-speaking population. It is found that of all the web pages in the world, about 84 percent are in English followed by 4.5 percent in German, 3.1 percent in Japanese, 1.8 percent in French, 1.2 percent in Spanish, 1.1 percent in Swedish, 1 percent in Italian and less than 1 percent in all other languages. In the case of India, 95 percent of the population does not speak English. Due to such overwhelming dominance of English over these communication channels, computers and the internet are quite useless in Indian villages, and the use of local languages does little to alleviate the problem due to the poor literacy level mentioned earlier.

3.7.4 Unawareness:
There is general lack of awareness regarding benefits of e-governance as well as the process involved in implementing successful G-C, G-G and G-B projects. The
administrative structure is not geared for maintaining, storing and retrieving the governance information electronically.

3.7.5 Lack of Participations of Society, Public and Private sectors:
Designing of any application requires a very close interaction between the govt. department and the agency developing the solutions. At present the users in govt. departments do not contribute enough to design the solution architecture. Consequently the solution developed and implemented does not meet the requirements of an e-governance project and hence does not get implemented.

3.7.6 Inequality:
Inequality in gaining access to public sector services between various sections of citizens, especially between urban and rural communities, between the educated and illiterate, and between the rich and poor.

3.7.7 Infrastructure:
Lack of necessary infrastructure like electricity, internet, technology and ways of communications as in Table 1 will affect the speed which delays the implementation.

3.7.8 Impediments for the Re-Engineering process:
Implementation of e-governance projects requires lots of restructuring in administrative processes, redefining of administrative procedures and formats which finds the resistance in almost all the departments at all the levels.

3.7.9 Operational Reluctance:
The psychology of government servants is quite different from that of private sectors. Traditionally the government servants have derived their sustenance from the fact that they are important repositories of government data. Thus any effort to implement Documents management and workflow technologies or bringing out the change in the system is met with resistance from the government servants.