CHAPTER – I

INTRODUCTION
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INTRODUCTION

"The customer is the most important person on our premises. He is not dependent on us, we are dependent on him. He is not an interruption of our work, he is the purpose of it. He is not an outsider on our business, he is part of it. We are not doing him a favor by serving him, He is doing us a favor by giving us the opportunity to do so."

- Mahatma Gandhi

A citizen is defined as people who consume public goods and services. On the other hand, a government is defined as a body of the people, by the people and for the people. Thus people and government are two faces of the same coin. Government’s performance reflects upon public health (prosperity) and public performance reflects upon the government’s health (party in power). The population explosion, phenomenon of globalization, I.T. revolution, fast life, changing socio-cultural environment, people’s heightened aspirations, increased pace of terror and social crime etc have brought about immense complexities in the management of government. On the other hand, the broad exposure the public has had to private sector products and services in the new economy has caused its expectations of government products and services to rise. With newfound ability to do business on-line (as opposed to in-line), the public has come to expect a much greater level of conveniences, availability and reliability of government products and services. Citizens expect the government to provide more efficient administration,
better services - access, speed, completeness... and increased participation in democratic process. Government in its part, even though it sincerely endeavors to do so, finds it tough to deliver on the lines of public expectations for the reason of vested interests, power that be, manipulations by public brokers and so on.

The resulting conclusion of the analytical view of public-government relationship briefed here is a big gap between the two constituents (entities) of a Nation. This necessitates the application of concepts and tools of customer relationship management to eliminate this gap.

1.1 Significance of Customer Relationship Management (CRM):

The great industrialist Henry Ford was, a century ago, already realizing that only paying attention to his customers would shape the success of his car business and of course he wasn't unique in understanding the importance of customers. Today, companies are active in a dynamic market facing deregulation, liberalization, globalization and increasing competition. This makes the question of how to win new customers and how to keep them an essential one, meaning that companies are tending to switch from a product-oriented to a customer oriented strategy. Information plays a major role and has become a strategic and competitive tool for management, resulting in the activity known as customer relationship management (CRM).

Customer Relationship Management (CRM) is a comprehensive approach for creating, maintaining and expanding customer relationship. It provides seamless coordination between customer service, marketing, information technology and other customer related functions. It integrates people, process and technology to maximize relationships with all the customers. It does not aim to build closer relationship with all customers, but it recommends that organizations take initiative to identify the most valuable customers by looking for their lifetime value. Thus CRM is "a customer-centric business strategy which drives changes in functional roles in the company, which demand re-engineering of work processes, which is supported, not driven, by CRM technology."2 Experts even mention, "None of the elements of successful CRM necessarily has to
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include technology. CRM is simply a process with the goal of making relationships profitable. To reach this goal, marketing, sales and service must work more as team and share information. Computerized CRM applications make this possible.\(^3\)

Customer loyalty is the name of the game. But keeping customers loyal means lots of individualized attention. And when that individualized attention is provided, the effort needed to stay ahead is huge. The new information technologies provide key to this approach. Increased customer attention means increased awareness of the customer as a better educated and more sophisticated player and people-to-people relationship becomes vital. Making the customer happy through the use of technology-based improved knowledge about him needs data warehousing and analysis of customer information that enables to gain better access to the customer.

The rules of competition and customer retention are being rewritten. Customers are deciding what, when, where and how they will purchase services. Their loyalty can no longer be taken for granted. CRM is the key to retain a long enduring relationship with the customer because today in marketing of services, 'life time value of the customer' is given importance.

In 1994, Professor Claes Fornell of Michigan Business School\(^4\) designed the American Customer Satisfaction Index (ACSI) He believed that "at the macro level, customer satisfaction should be considered as an economic indicator, like price and productivity." The results of ACSI data suggest that Customer service has been viewed as a cost and not as an investment. Business shows an insufficient awareness of customers' rising expectations.

The definitions\(^5\) of CRM fall into two categories as noted below:

1. Tracking customer behavior for the purpose of developing marketing and relationship building processes that bond the customer to the brand, and

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(2) Developing systems (software) to provide one to one customer service and personal contact between the company and the customer.

1.1.1 **Elements of Customer Relationship Management**: Customer relationship management is defined by four elements of a simple framework, **Know, Target, Sell and Service** as also shown in the following chart.

**Chart No. – C-1.1: Showing four Elements of Customer Relationship Management**

- **KNOW**: Understand your Markets and your Customers.
- **TARGET**: Develop the Offer
- **SELL**: Acquire the customers
- **SERVIC**: Retain the customers

**KNOW**: Understanding markets and customers is a subject of detailed customer intelligence, which is critical to pinpoint the most profitable customers and identify those no longer worth targeting. Customer segmentation thus plays a crucial role. Knowledge of the customers can be obtained and managed through IT systems such as value management of data warehousing and data mining.

**TARGET**: This tackles the question of which customer segments to target and which products and services to sell through which channels.

**SELL**: Sales processes can be optimized and harmonized (or even revolutionized) by the use of sales force automation systems that address every stage of the sales cycle through making appointment, sales proposals,
choosing products through electronic catalogues, customer follow-up and so on. At the same time, one can use campaign management to increase the marketing department’s effectiveness.

SERVICE: It relates to servicing customers in the best way so as to gain and retain their loyalty. Supporting them with call centers help desk services.

1.1.2 Contributions of CRM: The concept of CRM involves two-stages. The first stage is to master the basics of building customer focus. The challenge is to move from a product orientation toward a customer-orientation and define market strategy from Outside-In and not from Inside-Out, that is centered around customer needs rather than around product features.

Needs-based market segmentation, measuring customer satisfaction and loyalty, using activity-based costing to understand customers profitability, and setting up customer service infrastructure like call centers and toll-tree numbers are the building blocks for achieving customer focus in the second stage.

Two essential management processes are required to implement a customer focus in the organization as follows:

i) Program management to ensure that the necessary cultural and organizational changes really take place on a lasting basis and

ii) Architecture management to ensure the coherence between the architecture of processes and systems.

Another six clearly defined management steps are needed to bring about the change of emphasis from a product-led business to a customer-led one, from a distribution mentality to a consumer mentality. This is shown in the following chart.
**Chart No. – C-1.2: Management steps showing change of emphasis in Product-led business to a Customer-led business**

- **Developing The Strategy**
- **Analyzing Information**
- **Identifying Needs**
- **Defining Change**
- **Building The Future**
- **Measuring Results**

**Developing the strategy:** The first step is to decide what specific business benefits are expected from the customer relationship management strategy.

**Analyzing information:** The second step is to examine information flows between front back office and information on customers.

**Identifying needs:** The third step is the process of thinking about how to obtain the specific types of information that will tell about the customers' needs and expectations.

**Defining change:** The fourth step entails moving from reactive to proactive involvement with customers. This cultural shift can further entail corporate revolution.

**Building the future:** The fifth step is constructing and deploying the business and technical structure that will deliver the expected benefits.
Measuring results: The sixth and final step is concerned about building value-added benefit measurement systems to check the performance of the customer relationship management system and to improve it.

1.1.3 The Customer Experience Chain: The customer experience chain is the process, which a customer goes through when searching for, buying, using and eventually replacing a product. It lies at the heart of CRM and determines customer satisfaction and loyalty. Building expectations through advertising while being unable to deliver or service the product is no good. Excellence in one part of the chain is often offset by mediocre performance in another part. The key idea of CRM is to manage the customer interface across the entire chain as one coordinated process. CRM is not the exclusive task of the customer service department. Rather it requires breaking down the silo mentality of marketing, sales and service functions.

The traditional approach to understanding customer needs is to employ quantitative and qualitative market research techniques such as surveys and focus groups interviews. Although this does yield a deeper understanding of needs and buying behavior, it remains a snapshot picture. Sophisticated data warehousing and data mining techniques enable companies to constantly extract knowledge about their customers from operational systems and external sources and predict likely customer behavior - not on a segment basis but for each individual customer. That information is then distributed to all likely customer contact points throughout the organization and updated in real time as a customer interacts with a sales representative, a telesales representative or an e-commerce channel.

Innovating the value provided to customers is an integral part of CRM, since the product or service is what the customer is ultimately
interested in. Customers' needs change and the competition is either copying the value one has invented or developing innovations themselves. The key to a constant and systematical reinvention of the value proposition offered to customers lies in looking beyond existing industry boundaries and thinking beyond what customers expect today.

No customer database will generate insights about what users cannot imagine today, and breakthrough innovations can turn the competitive landscape upside down. However, in most cases it will be incremental innovations that increase the value offered to customers. Gaining a thorough knowledge of the customers' business can be a powerful generator of new ideas. One can then adapt them to suit customers' requirements, bundling the products with complementary ones and value-added services to help optimize the business' performance. The trick is to use the entire CRM process to collect indicators for possible value innovations, rather than being forced to rely on some lone genius down in the research lab.

Adhering to these principles will take customer focus to a new level and yield substantial benefits for organizations.

The benefits of achieving customer focus are hardly new insights and many companies have invested in customer service departments and call centers. The reason is that the technology to go beyond the basic step of customer-orientation only recently became available and the companies that offer these second generation CRM technologies are experiencing breathtaking growth rates. Currently the majority (75%) of technology investments are funneled into basic call center applications. A strong uptake of the technology behind second generation CRM such as advanced database technology, World Wide Web integration, sales force automation, and multimedia-based front office applications is in the offing.
1.2 Management in Governance:

The demand for improved government customer service has increased significantly over the last ten years. Citizens, businesses, visitors, and employees now require elected officials to provide a more responsive, accountable, and cost effective government. They desire 24 hours and 7-days a week access to government services through multiple channels such as web, phone, fax, email, etc.. They want all parties to share accurate and timely information in order to rapidly deploy government resources. Constituents hold their government officials accountable and demand follow-up, status reports, and assessments of their requests for government services.

Some of the challenges State and local governments face with their customer service delivery systems include the followings:

- Inconsistent customer service standards
- Repeatedly transferring callers between agencies
- Multiple calls for the same problem due to slow service response
- Multiple Resources working on the same problem
- Employees calling to request information and generate service requests
- Citizens and business partners calling to request information or services that could be located via the Internet or elsewhere
- No integrated information system
- No integrated, coordinated, multi-agency service request system
- No real time work order management system.

Over the last decade, with the augmentation of resources and technology, governmental bodies are integrating modern business management tools in an effort to deliver a more efficient and accountable government. Desired management features include a dynamic system capable of tracking, assigning, remediating, and conducting performance assessments of service requests.
1.2.1 **Rural Governance**: Little has changed in the villages of India in the past decades. Although schools have been built, but many still lack teachers and appropriate teaching methods. There are phone lines in many villages, but getting a dial tone is still a challenge. Electricity supply is at best intermittent. Health care is still limited in its availability. Entertainment is limited to radio or television, if at all the electricity is there. India's villages are dependent on agriculture for much of their sustenance. Drought is a common occurrence across much of India. As a result, villagers, for the most part, remain a poor lot - the per capita income of India's villages is no more than USD 240-360 per annum, as compared to the national average of USD 500. Most important, the opportunities available to the people in villages are not dramatically different from what they were many years ago. And yet, India is in its villages. 70% of Indians live outside of the urban areas. Even as there is one India which is racing ahead with optimism towards the future, there is another India which seems to be stuck in the past. If India has to progress, there is little doubt that India's villages have to progress, too. Transforming Rural India is a challenge that should focus the best of Indian minds - it is perhaps the single biggest barrier to making India a developed country. and achieving the 10% growth that CK Prahalad talks about. India's villages need disruptive innovations to make the giant leap forward.

1.2.2 **Government as Service Provider**: The importance of relationship management in the public sector is nothing new. In November 2001, Accentor released a report entitled *Customer Relationship Management – A Blueprint for Government*. The report notes that governments are the largest service providers in the world and that good relationship management in the public sector helps streamline services, improve inter-agency information sharing and provide self-service options to the public.
While recognizing the importance of CRM tools in helping organizations maintain key relationships, the Government has also to acknowledge that these CRM tools are only one part of the puzzle. CRM is also a mindset that leads to a set of values and principles that govern service delivery. In order to effectively implement a CRM-driven model of service delivery, organizations must understand the needs and benefits of such a model. At the same time, organizations must also understand how they want to relate to and serve their audience.

CRM’s focus in the private sector has been on the customer; consequently, many public sector organizations view citizens as their customers. There can be no doubt that the citizen is a fundamental part of any successful government CRM model. Indeed, CRM principles are leading governments around the world to orient their service offerings around public needs instead of bureaucracy. Many government organizations have mandated to improve communications between the government and its citizens by launching its website structured around citizens. The site also provides general information about the government, its history, geography, culture and governmental structure. Frequent consultation with users through on-line surveys and focus testing helps ensure that these sites continue to meet the public’s needs. Users are also encouraged to send their comments to the site through e-mail addresses and forms specifically established for that purpose. A toll-free support line answers questions about the site, helps users find the information they need and provides an additional avenue for user feedback. This direct communication enables the site to quickly address concerns about different issues.

Another example of how the government responds to citizen needs is the launch of national toll-free number. Through the national toll-free number, the public has access to a wide range of information about
Government and its programs and services. Bilingual information officers – using an extensive database – answer questions, take orders for publications, and direct callers to specific departmental service experts. Citizens do not have to know which government organization offers a particular program or service; information officers are there to help the public find what they need.

In order to effectively deliver these and other services that respond to citizen needs, it is important to adopt a whole-of-government approach. The Government needs to identify the key stakeholders, whose role it is to set priorities for service delivery, provide strategic thinking, ensure awareness of government programs and support government strategies and initiatives. This kind of leadership helps all government organizations ensure that the public is aware of their services.

In addition to fostering awareness of services, the Government has also to work toward improving citizen satisfaction. The Service Improvement Initiative\(^ {13} \) (SII) targets organizations whose activities have the greatest impact on the public. Another aspect of the whole-of-government approach involves the development of relationships with other government organizations. These partnerships provide a framework for sharing ideas and experiences as well as setting standards and ensuring seamless service delivery. Inter-agency cooperation is central to the success of services. Cooperation within government also leads to greater efficiencies in service delivery.

Focusing on inter-agency cooperation must also include considerations for employees working in these organizations. Employees are frequently on the front lines of service delivery and expect to have access to the full range of tools they require in order to stay informed and fulfill the requirements of their jobs, including providing services to the public. The public service workers must be informed about the organizing principles
behind so that they can find information as and when they need it as well as help citizens locate information.

Thus the CRM of Customer Relationship Management used as a Concept underlying CRM of Citizen Relationship Management to achieve CRM of Complete Relationship Management - a 3-C Model is emerging in the process and shown through following diagram.

**Figure No. F-1.1 Showing 3-C Model of Relationship**

While the success of any CRM model depends on citizen-centric service delivery, there are other facets to consider. Stakeholders, partners and employees, though focused on the needs of citizens, all play a crucial role in CRM. For this reason, the Government must consider CRM to stand for “Complete Relationship Management.” This ensures the greatest benefit for citizens interacting with the bureaucracy by organizing services around their needs instead of government structure. It also benefits government by providing the framework for consistent and coherent promotion and messaging. The public service also realizes the benefit of having well informed and enthusiastic workforce.

### 1.2.3 Local Governance:

In 1989 the Government of India took steps to enhance the role of rural local governments (Panchayats) through direct funding. The aim was to create units responsible for economic development at the local level, and to create jobs directly. Attempts were made by the government to make it mandatory for all States to adopt a three tiered system
of Panchayats. This was then rejected by the Rajya Sabha, as it was perceived to reduce the power of the States in relation to both the national government and local government. The trend towards enhancing the role of local government continued, and in 1992 the 73rd and 74th Constitutional Amendments were enacted. The Panchayati system in the rural areas thus came to be established in different States on different tier basis as shown in the following chart.

Chart No. – C-1.3: Showing Panchayati System in Rural India

The Panchayats are situated in the rural areas of India. In twenty-two States there are three tiers in the Panchayati system, in one State (Goa) there is one tier, and in five State (Jammu & Kashmir, Manipur, Meghalaya, Mizoram and Nagaland) there are two tiers in the Panchayati system. States with populations of less than two million are not required to adopt the three-tiered system. They are not strictly hierarchically organized, rather there is a division of duties between them. There is limited coordination role for higher levels of the Panchayati authorities.

State law establishes mandatory committees, consequently this may vary from State to State. However, generally the following holds true.
All have executive committees. The Zilla Parishads are required to have General, Finance and Audit, Planning, Social Justice, Education, Health, Agriculture and Industrial committees. The Gram Panchayats have Production, Social Justice and Amenities committees. Most States provide the Panchayats with little discretion over the establishment of other committees.

Councilors are elected for five year terms. The elections for council leader can be direct or indirect, depending on State law. The State government determines honoraria.

1.2.4 Citizens' Charters: Citizens' Charters have been put in place in the cities. When citizens feel this charter has been broken they can appeal to the municipality for redress, or to the State ministry responsible for local government.

Local government is responsible for a limited number of services – water supply and sanitation, waste disposal and management, burials, street lighting and roads. More recently it has been given a greater role in economic development, and in the urban sector has been given specific responsibility for poverty alleviation. It has a role in providing lower level education, the secondary and tertiary levels being the responsibility of the States. Local government shares responsibility for public health and environmental protection with the States.

1.3 Role of Centralized Information System (CIS) in Management of Governance:

As the cornerstone of the CRM strategy, the Centralized Information System (CIS) is designed to provide a complete view of the customers, including complete customer demographics and product relationships. CIS provides a central repository for critical customer information, the foundation for managing relationships. CIS is
integrated with other CRM solution offerings to ensure data consistency for marketing, profitability and decision-making activities.

For a successful e-governance project, technology plays only 15% role, while rest 85% role is being taken care of by project management. Human resource development of the existing workforce in order to inculcate appropriate skills and attitudes is a critical factor. Equally important is the establishment and set up of the basic infrastructure, which is conducive to the efficient functioning of the e-governance. A sound communication infrastructure is essential for easy access. It should be innovatively used to ensure that no section of society is deprived of the benefits arising there from. Governments have to learn to digitize documents quickly and effectively so that the e-governance revolution becomes a reality.

The e-Governance Act is needed in India as in every country. The need of the act is to ensure that the Government works in an integrated manner and takes the advantage of the emerging technology in e-Governance. The IT Act 2000 covers all important issues related to Information Security but it does not have under its preview the new emerging inter agency cooperation that will be required for an information society.

The Government has also to ensure that it does not spend on a similar project for multiple numbers of times. Additionally with the changing era the Governments will be visualized as one entity. It will not be a citizens concern that a few areas are State Subjects and other are Central Government Subjects.

The e-Governance Act should create a unified command for e-governance in form of Central e-Governance Administrator at the Center and Chief Information Officers at the State. The Act will ensure that the Government Services are delivered in an integrated manner. It should ensure time bound compulsory adoption of digital signatures by all Government Authorities and will make necessary changes to the Citizenship Act to enable the use of Multipurpose National Identity Cards.
The Act should enable to take full advantage of the improved Government performance that can be achieved through the use of Internet-based technology - CIS. It should ensure strong leadership, better organization, improved interagency collaboration, and more focused oversight of agency compliance with statutes related to information resource management. Today’s citizens greatly value timely accessibility to the government information that affects their lives. In fact, the vision of the citizen e-government center of the future is to allow citizens seamless access to government information:

- At any time
- From anywhere
- In any form
- For FREE.

1.3.1 **CIS Software: e-REACT** (electronic REquest for ACTion) is a Citizen Relationship Management software solution, “designed by a city for cities” 17, that eases the burden of technology management. This provides a single point of contact enabling citizens to interact directly with their government and thereby establishes a Centralized Information System (CIS).

1.3.2 **Challenges for Good Governance**: With the accelerating process of globalization, there are increasing demands for liberalization, along-with diametrically opposed but compelling set of expectations18 for improvements in efficiencies in delivery of services by various government agencies. With this, the first challenge from the process of transition is the “pandemonium in policy formulation” and the coherent connotations are the scattered but serious efforts at various levels of governance, to plan good quality of services for better living environment through professional management in governance. However, generally, government agencies are faced with the uphill task of managing the scenarios - having scarcity of financial resources, lack of knowledge and in-house capacity to deal with the problems of changing governance. Information crisis and lack of endeavors to take
innovative steps, is further aggravating the situation. Hence, dissemination of information regarding such scattered efforts would be one of the easy and effective tools, for facing the new challenges. Even within all those constraints, some managers in Government are taking initiatives to sustain the development and improve the quality of life. Some of their initiatives have given remarkably good results. Some efforts have failed as well due to various reasons.

A close look to the successful efforts can lead to probable solutions of similar problems that others are facing. These success stories should be discussed, improved according to need and adopted to tackle the problems at other places. Further, there is a common set of issues at various places - such as lack of finance, water shortage, inadequacy of drainage facility, inefficient solid waste management, growth of slums, problems of health and sanitation, degrading infrastructure, overall dissatisfaction by citizens towards government services and so on. Similarity of the problems makes it necessary to think about common solutions to these problems. Some managers have taken initiatives and successfully solved the problems. But they are not even known to the neighboring government officials, who are probably facing identical problems and the reason is only lack of exchange of information. If good practices adopted at one place can be replicated elsewhere, similar results can be reaped all over. It will also encourage the managers to evolve new ideas leading to the setting of new paradigms for effective governance and efficient management. Government officers should share their experience with others to achieve the above goal. Discussions, workshops, seminars, etc., facilitate such exchange of ideas. But for such dissemination of information on regular basis there is the need of a platform like YASHADA. Governments need to build their in-house capacity through exchange of information, knowledge, etc.
1.4 Application of CRM through CIS:

Public and private sector organizations alike are striving to improve their productivity and effectiveness by rethinking missions, reengineering processes, and implementing information technology (IT) solutions. IT offers substantial potential benefits to organizations. Effective use of information and information technology tools are essential to meet shifting and evolving programmatic goals. As a consequence, technology, government objectives, practices and policies are interlinked in an ongoing circle of influences. Focus is on the interrelationships among these four elements as shown in the Figure No. – F-1.2 given herein below.

Fig. No.- F-1.2: Showing Interrelationships of elements of CIS\textsuperscript{20}

Emerging IT tools such as the World Wide Web, information systems, and data warehouses, being used by government agencies to support programmatic objectives and to change practice in terms of the way agencies communicate internally, and interact with citizens, the private sector, non-profits, and other government agencies.

The progressive adoption of Information Technology by Governments has a beneficial catalytic effect on the development of an Information Society. In this
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transformation, Civil Society and Private Enterprise play a greater role in decision-making, reinforcing the democratic process

Developing country’s governments have been using IT for some time now. But there has been a paradigm shift from Information Technology to Information & Communication Technology and from Information Technology to Information Systems. The penetration of Information and Communication Technology (ICT) is constantly changing the way people interact within the society (with other individuals and organizations) and the way the society involves individuals in its governance and evolution process. Societies are increasingly getting transformed to Knowledge Societies and its inhabitants into Knowledge Networkers.

Knowledge Networkers are those who are more informed of the events happening locally and globally, and use this knowledge pro-actively. The use could be for private gains or for public benefits. The use of ICTs have a strong role to play in the emergence of such Knowledge Networkers.

The traditional model is one of information technology (IT) automating the internal workings of government by processing data. However, the new model is one of information and communication technologies (ICTs) supporting and transforming the external workings of governance by processing and communicating data. Governance should be seen to encompass all ICTs, but the key innovation is Computer networks – from Intranets to the Internet – creating a wealth of new digital connections some of which are shown below.

- Connections within government – permitting 'joined-up thinking'.
- Connections between government and NGOs/citizens – strengthening accountability.
- Connections between government and business/citizens – transforming service delivery.
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- Connections within and between communities – building social and economic development.

The CIS model brings information systems (IS) to the heart of reform in governance. This means following two things:

i. **Central role for ICTs**: As governance becomes – and becomes recognized as – ever more information-intensive, ICTs become an essential part of more and more governance initiatives. ICTs are also recognized as a key lever to change. They are no longer isolated on the sidelines.

ii. **An Integrated role for ICTs**: As servants to the master of good governance. ICTs are no longer seen as an end in themselves and they are seen to work only as part of a wider systemic 'package'. Overall, then, e-governance is the ICT-enabled route to achieving good governance. This may be designated as 'igovernance' – integrated governance – since it integrates both the processing and the communication technologies; and since it integrates people, processes, information, and technology in the service of achieving governance objectives.

Thus CIS through the use of ICT can influence the process of Governance in several ways as described below:

a. **Technical** :- Automation of tedious or repetitive governance tasks and thereby improving efficiency of governance processes.

b. **Facilitating / Supportive role** :- Using ICT to complement existing efforts/ methods to improve governance. For instance, putting government information on a website, or opening avenues for people to communicate with government officials through email.
c. **Innovative role:** which involves initiating new services and new mechanisms to improve governance. The potential for any individual to access the same information instantly as and when it becomes available in the public domain is useful to fighting corruption and reducing information monopoly of traditional power bearers etc. In other cases, rapid access to information from sources other than government sources can improve decision-making capacity of an individual.

1.4.1 **The Challenge in Application:** There are five major challenges, which the developing country governments like India have to face in order to assess its strategic preparedness for e-governance on the basis of the proposed application of CRM through CIS. These are as follows:

A. **Readiness of Legal Infrastructure:** Are the laws and regulations required to permit and to support the move to e-governance in place? In many countries, for example, digital signatures cannot be accepted.

B. **Readiness of Institutional Infrastructure:** IT in governance can only be progressed if the institutions exist to act as a focus for awareness and to act as a means for facilitation of the same. In many countries, there are no institutions to co-ordinate and lead and drive this initiative of integrating and implementing ICT’s and CIS in government organizations.

C. **Readiness of Human Infrastructure:** It also requires the attitudes, knowledge and skills in place – especially within the public/government sector – that are required to initiate, implement and sustain e-governance initiatives. In many countries, key skills gaps relate to business analysis and system design, and to project management, contract management and vendor management. There
are also 'mindset' gaps: general resistance to change; lack of customer-orientation; resistance to data sharing; etc.

D. Readiness of Technology Infrastructure: Most developing countries are a long way short of the computing and telecommunications infrastructure, which are a backbone for effective implementation of ICT’s and CIS to governments. This therefore happens to be another challenge.

E. Readiness of the Leadership and Strategic Thinking: A critical pre-condition in successful IT governance initiatives for development is an e-champion or small group of e-champions. They are the leaders with vision who put strategic use of IT in governments onto the agenda and make it happen.

1.4.2 Different Application Models in Existence: There are a number of models, which have been built and applied as CIS model incorporating CRM in it. Most of these models have evolved from the government initiatives leading to ICT initiatives integrating them to e-governance initiatives for appropriate reforms. These modular developments have been shown through the following diagrams.

Fig. No. – F-1.3: Showing Modular Developments of ICT

[Diagram showing modular developments of ICT]
Models of Digital Governance are continuously evolving and improvising to harness the potential offered by the ICT and deal with new realities in the area of governance. All these models share in common, the inherent characteristics of the new technologies, which are:

- Enabling equal access to information to anyone who is linked to the digital network, and
- De-concentration of information across the entire digital network

The important among these models are listed below.

A. Broadcasting / Wider-Dissemination Model: The model is based on dissemination / broadcasting of useful governance information which is in the public domain into the wider public domain through the use of ICT and convergent media. The strength of the model rests upon the fact that a more informed citizenry is better able to judge the functioning of existing governance mechanisms and make an informed opinion about them. As a consequence, they become more empowered to exercise their Rights and Responsibilities. The major applications of this model are as follows:

- Putting Governmental Laws and Legislations online.
- Making available the names, contact addresses, emails, fax numbers of local/ regional/ national government officials online.
- Making available information pertaining to Governmental Plans, Budgets, Expenditures, and Performances online.
- Putting key judicial decisions, which are of value to general citizens and create precedence for future actions online. viz. key Environmental Decisions, State vs. Citizen decisions etc.

National Informatics Centre (India) is the official website of the Government of India that uses this model to make available Ministerial Information, Indian Laws and Legislations Online, Contact Details etc. online for public access.

Fig. No. – F-1.4: Showing Broadcasting / Wider-Dissemination Model

B. Critical Flow Model: The model is based on disseminating/ channeling information of critical value to the targeted audience such as the media, opposition parties or into the wider public domain through the use of ICT and convergent media. This model requires a foresight to:

- Understand the "use value" of a particular information set,
- Obtain such information,
- Use strategically, and finally
- Targeting it to users to whom the availability of such information would make a difference.
The strength of this model is that ICT makes the concept of 'distance' and 'time' redundant when information is hosted on a digital network, and this could be used advantageously by instantly transferring the critical information to its strategic user group located anywhere or by making it freely available in the wider public domain. The major applications of this model are making available the followings:

- Corruption related data about a particular Ministry / Division/ Officials online to its electoral constituency or to the concerned regulatory body.
- Research studies, Enquiry reports, Impact studies commissioned by the Government or Independent commissions to the affected parties.
- Human Rights Violations cases freely available to Judiciary, NGOs and concerned citizens.

The website of the Indian Central Vigilance Committee provides free-access information to citizens about government officials who have been indicted on judicial charges relating to corruption and have been advised penalty. People can also file complaints against any public servant who fall within the jurisdiction of the Commission through this website which uses the discussed model. Similarly, Land/Property Registration in Andhra Pradesh uses this model. The diagrammatic view of the model is given below.

Fig. No.- F-1.5: Showing Critical Flow Model

Private Domain Information

Critical Domain → Targeted/Wider Domain
C. Comparative Analysis Model: This model can be used for empowering people by matching cases of bad governance with those of good governance, and then analyzing the different aspects of bad governance and its impact on the people. The model is based on using ICT to explore information available in the public or private domain and comparing it with the known information sets. The strength of this model lies in the infinite capacity of digital networks to store varied information and retrieve and transmit it instantly across all geographical and hierarchical barriers. The major applications of this model are to:

- Learn from past policies and actions and derive learning lessons for future policy-making.
- Evaluate the effectiveness of the current policies and identify key learning's in terms of strengths and flaws in the policies.
- Effectively establish conditions of Precedence, especially in the case of Judicial or legal decision-making.
- Enable informed decision-making at all levels by enhancing the background knowledge and also providing a rationale for action.
- Evaluate the performance and track record of a particular decision-maker/ decision-making body.

The Human Development Report of UNDP makes use of archived Statistical information pertaining to literacy, health, national income etc. as a benchmark to assess the progress made by different countries with regards to their Human Development Index and suggests policy recommendations based on that using this model.
D. Interactive Service Model: Government – Consumer – Government interactive-Service model is a consolidation of the earlier presented digital governance models and opens up avenues for direct participation of individuals in the governance processes. Fundamentally, ICT have the potential to bring in every individual in a digital network and enable interactive (two-way) flow of information amongst them. The potential of ICT for the governance is fully leveraged in this model and leads and can bring lead to greater objectivity and transparency in decision-making processes. The major applications of this model are to:

- Establish an interactive communication channels with key policy-makers and members of Planning Commissions.
- Conduct electronic ballots for the election of government officials and other office bearers.
- Conduct public debates / opinion polls on issues of wider concern before formulation of policies and legislative frameworks.
- Filing of grievances, feedback and reports by citizens with the concerned governmental body.
- Establishing decentralized forms of governance.
- Performing governance functions online such as revenue collection, filing of taxes, governmental procurement, payment transfer etc.

Figure No. – F- 1.7: Showing Service Delivery Models

"Gyandoot" is an Intranet in Dhar district (India) connecting rural Cyber cafés catering to the everyday needs of the masses, which uses this model, Karnataka’s "Bhoomi" project also uses the same model.

Reforms in information technology have an immediate, tangible impact upon the efficiency and effectiveness of governments. An interview of the beneficiaries of Computer Aided Registration Department (CARD), as shown in the following charts, evidences this fact.
### Chart No. – C- 1.4: Showing Comparison with previous visits, prior to Computerization by CARD

<table>
<thead>
<tr>
<th>Dimensions of service delivery (CARD)</th>
<th>Extremely high level of satisfaction</th>
<th>Somewhat satisfied</th>
<th>Some form of dissatisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Overall Satisfaction</td>
<td>47 %</td>
<td>46 %</td>
<td>7 %</td>
</tr>
<tr>
<td>Comparison with previous visits, prior to computerization</td>
<td>28 %</td>
<td>54 %</td>
<td>18 %</td>
</tr>
<tr>
<td>Faster service to the citizens</td>
<td>Average time taken after implementation of CARD</td>
<td>1.5 days</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Average time taken before implementation of CARD</td>
<td>3.8 days</td>
<td>-</td>
</tr>
<tr>
<td>Staff behavior and interaction with users</td>
<td>30 %</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Chart No. – C- 1.5: Showing Comparison with previous visits, prior to Computerization by CTO

<table>
<thead>
<tr>
<th>Dimensions of service delivery (CTO)</th>
<th>Extremely high level of satisfaction</th>
<th>Somewhat satisfied</th>
<th>Some form of dissatisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Overall Satisfaction</td>
<td>43 %</td>
<td>32 %</td>
<td>15 %</td>
</tr>
<tr>
<td>Comparison with previous visits, prior to computerisation</td>
<td>-</td>
<td>-</td>
<td>40 % with non-computerised</td>
</tr>
<tr>
<td>Faster service to the citizens</td>
<td>90 % respondents says Average time taken after implementation of CTO</td>
<td>1 days</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>65 % citizens have to meet other officials and get their visit completed within</td>
<td>20 min.</td>
<td>-</td>
</tr>
<tr>
<td>Staff behavior and interaction with users</td>
<td>30 %</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
As obvious from these tables, level of overall satisfaction, the most important indicator of impact, suggests that CARD is a major success. While 47% of respondents indicated extremely high level of satisfaction, 46% of the respondents said that they were somewhat satisfied (only 7% indicated some form of dissatisfaction). In addition, 28% of those respondents who had visited the Registration Office prior to Computerization reported that they now had a better experience after CARD. Among respondents from the control group, just 90% indicated an extremely high level of overall satisfaction for reduction in average time taken 1 day instead of 1.5 days.

1.5 E-Governance – Prospect, Possibilities and Problems:

More countries than ever before are working to strengthen democratic governance. Their challenge is to develop institutions and processes that are more responsive to the needs of ordinary citizens, particularly the poor.

The increasing growth of the Internet economy is driving organizations and governments across the globe to deliver integrated services directly to the public. Also, with the advent of e-governance initiatives, the expectations of the citizens from its government are on a rise. Citizens are increasingly demanding simpler, clearer, more accessible and personalized service from the government.

E-Governance is an important part of this process. Not only does it deliver Government services and information to the public using electronic means, it promotes participation, builds partnerships, accountability and effectiveness at all levels. The world over, E-Governance is used by Governments to strengthen their electoral and legislative systems, improve access to justice and public administration, and develop a greater capacity to deliver basic services to those most in need.

During the last few years, the Government of India, as well as various State Governments have taken major initiatives towards the use of information technology for ushering in E-governance.
There are striking examples of E-Governance initiatives in the delivery of basic services including health and education; social services including pension, registration of licenses and certificates; rural services, etc.

E-Governance has two dimensions\(^3\). The first is the application of Information Technology for the improvement of Administration. Second is application of Governance to the emerging Cyber Society. The concept of E-Governance (EG) is, in principle applicable to all types of Governance including Corporate Governance, the emphasis is given here on traditional responsibilities of a Politically elected body (Government) entrusted with the administration of a society (Citizens).

This system of Governance consists of the Ministry and the Parliamentary /State Legislative systems, down to the elected representatives of the Village Panchayat. It also includes the implementation machinery consisting of the Officials and any other organizations involved in the delivery of collective State administered services to the Citizens. The essence of EG is the Communication between the "Governing" and the "Governed" and the test of “Good Governance” is a "Harmoniously Living Society”. The World Bank defines e-governance as the use of information and communication technologies by government agencies to transform relations with citizens, business world and other arms of the government. The term e-governance involves the computerization and networking of all government departments and linking each district with the State headquarters. However, e-governance has several connotations as shown in Table No.T-1.1.

Transparency, accountability and authenticity (TAA) are the pre-requisites for good governance\(^4\). These are, generally, not found in a “traditional paper based” governmental functioning. That is why use of Information Technology (IT), in the form of e-governance, in governmental functioning assumes significance.
Table No. – T- 1.1: Showing connotations of E-Governance

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Connotations of e-Governance</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E-administration</td>
<td>The use of ICTs to modernize the State; the creation of data repositories for MIS, computerization of records.</td>
</tr>
<tr>
<td>2</td>
<td>E-services</td>
<td>The emphasis here is to bring the State closer to the citizens. Examples include provision of online services. E-administration and e-services together constitute what is generally termed e-government.</td>
</tr>
<tr>
<td>3</td>
<td>e-Governance</td>
<td>The use of IT to improve the ability of government to address the needs of society. It includes the publishing of policy and program related information to transact with citizens. It extends beyond provision of on-line services and covers the use of IT for strategic planning and reaching development goals of the government.</td>
</tr>
<tr>
<td>4</td>
<td>E-democracy</td>
<td>The use of IT to facilitate the ability of all sections of society to participate in the governance of the state. The remit is much broader here with a stated emphasis on transparency, accountability and participation. Examples could include online disclosure policies, online grievance redress forums and e-referendums. Conceptually, more potent.</td>
</tr>
<tr>
<td>5</td>
<td>E-readiness</td>
<td>The readiness of governments to appropriate IT for pursuing development. Among the most obvious and critical is the connectivity factor.</td>
</tr>
</tbody>
</table>

The objective of e-governance goes beyond mere computerization of government offices. It fundamentally means changing the way the government operates and implies a new set of responsibilities for civil servants, business world and the public. Plans such as online services will give an average citizen access to Government services, with faster responses at more convenient hours. These services include providing information, collecting taxes, granting licenses, administering regulations and paying grants and benefits. The aim of e-governance is to eliminate middlemen and corruption. Once people know that information could not be monopolized, they would demand access to it. Thus, e-governance can not only ensure “TAA” but equally makes Right to Information U/A 19(1)(a) and Right to Know U/A 21 of the Constitution of India a meaningful reality.
1.5.1 Origins of E-Governance in India: E-governance originated in India during the seventies with a focus on in-house government applications in the areas of defense, economic monitoring, planning and the deployment of ICT to manage data intensive functions related to elections, census, tax administration etc. The efforts of the National Informatics Center (NIC) to connect all the district headquarters during the eighties was a watershed. From the early nineties, e-governance has seen the use of IT for wider sectoral applications with policy emphasis on reaching out to rural areas and taking in greater inputs from NGOs and private sector as well. There has been an increasing involvement of international donor agencies such as DFID, G-8, UNDP, WB under the framework of e-governance for development.

While the emphasis has been primarily on automation and computerization, State endeavors to use IT include forays into connectivity, networking, setting up systems for processing information and delivering services. At a micro level, this has ranged from IT automation in individual departments, electronic file handling, access to entitlements, public grievance systems, service delivery for high volume routine transactions such as payment of bills, tax dues to meeting poverty alleviation goals through the promotion of entrepreneurial models and provision of market information. The thrust has varied across initiatives, with some focusing on enabling the citizen-State interface for various government services, and others focusing on bettering livelihoods.

1.5.2 Pillars of e-Governance: Five major pillars support the system of EG. These are as also shown in the chart given here:

1. Computers
2. Connectivity
3. Content
4. Consumer/s
5. Confidence Building
"Computers" in this context refers to all the hardware and software requirements of Governance. "Connectivity" refers to all the information carrier systems, bandwidth etc. “Content" refers to the information that is exchanged between the "Consumers" of the system. "Consumers" refers to all the human and human substitute systems that access and use the "Content" in the EG system. “Confidence Building ” refers to such of those measures that helps the Citizens develop a confidence in the E-Governance and encourages them to take to the E-Transformation. It is in this context that “Law” has a part to play along with “Education”.

1.5.3 **Cyber Society:** One of the key features in EG is to recognize that it includes an attempt to Govern the component of the society, which is accessible through the "Cyber System". It therefore covers the "Cyber Society"^{35} within the "General Society". At the same time E-Governance also attempts to regulate the Cyber Society itself because the person and property of a Citizen are controlled by the Government. Most of the Conflicts and Issues in E-Governance arise because of the inability to accept the existence of two different societies with overlapping jurisdiction. While
one of the pre-requisites of a functional EG is to ensure a deep penetration of EG at least beyond a minimum acceptable critical level, at any point of time it has to deal with a mixed society, which consists of the followings:

1. The Cyber Society
2. Non Cyber Society
3. Adhoc Users of the EG system who have not evolved into the Cyber Society

The Cyber Society consists of those who have adopted the Cyber Usage to a substantial extent. They have a culture of their own. They own Cyber property and participate in E-Commerce. This Cyber Society has its own boundaries even though they are not bound by the boundaries of the geographical world. Such boundaries may be defined by various technology parameters. One example of such a boundary can be digital identity.

1.5.4 Possibilities: The concept of electronic governance can do many wonders and one of them is to play the role of whistle blowing. Whistle blowing refers to a situation where the factum of arbitrariness, illegality or a wrongful act by the “dominant personality” is brought to the notice of general public and courts. The dominant personality may be the all-powerful State, its instrumentalities or even the private employers, who by virtue of their position and resources are capable of suppressing the wrongful conduct. It must be appreciated that the evils of corruption, delinquencies, scams, etc are intangible in nature and they breeds due to lack of transparency and accountability. The use of information technology in the form of e-governance will eliminate these evils by bringing transparency and accountability.

Some of the Successful projects and e-Governance initiatives implemented in India are:
1. Government of Andra Pradesh e-Seva for Single Window / Convergent Delivery of Citizen Services
2. Computerized Administration of Registration Department (CARD)
3. WARANA Cooperative Complex is an example of successful integrated rural development resulting from co-operative movement through People's participation.
4. SETU is an initiative of the Government of Maharashtra which provides for Citizen satisfaction through its services.
5. FRIENDS Janaseva Kendram is a Citizen Friendly Service Centre set up by the Department of Information Technology, in association with the Thiruvananthapuram Corporation.
6. BHOOMI, Government of Karnataka, is a comprehensive Land Records Computerization System with fully online system to carry out mutations on land records data.
7. Simplified and Transparent Administration of Registration (STAR) of the Government of Tamil Nadu, is a large scale computerized services of Land records transactions.
8. GYANDOOT Project of the Government of Madhya Pradesh in Dhar district is a computer network connecting rural Cyber cafes.
9. IT initiatives by Department of Posts.
10. Election Commission has brought about significant improvements and transparency in all aspects of the election process particularly in the electoral management and administration by effective use of information technology in a big way.
11. Initiatives in the Department of Telecom
12. Citizen Service Portal is an initiative of the Centre for Electronic Governance at the IIM Ahmedabad for the Citizens of Panchmahals District.
1.5.5 Problems in E-Governance: If the Government has to ensure "Harmonious living" in a society which may consist of disparate interacting elements, there is a need for some "Norms" acceptable to the society which will be complied with voluntarily by a majority of the members. It is in the exception of cases when a member of the society transgresses the "Norm" that we say that a "Crime" has been committed and invoke the "Police" and "Judiciary". Ideally, a commonly accepted set of "Norms" evolves into the "Law" for the society after they are codified into the statutory books. Thus, "Cyber Laws" have an important role in representing and defining the norms of the "Cyber Society" that the system of EG tries to administer.

One of the practical challenges in EG is to ensure that the "Cyber Laws" not only satisfy the requirements of the "Cyber Society", but also are acceptable to the "Non Cyber Society" with which it interacts as well as the "Occasional members of the Cyber Society". In a country like India, where the Netizen population is only around 2 Million now expected to reach 20 Million shortly, while the Citizen population is over 1 Billion, the need of managing the "Digital Divide" and its consequences are also important factors in EG. The Cyber Laws have to therefore manage these "Inter Society" issues to the Satisfaction of both the societies.

The Cyber Laws in the Indian Context came into focus with the Information Technology Bill-1999, which has since been passed as Information Technology Act-2000 (ITA-2000). This was the first comprehensive codification of Laws in India directly enacted for the regulation of the Cyber world. The ITA-2000 was a big step in the direction of introducing Cyber Laws for India. First of all, it provides a legal recognition for Electronic Documents and Digital Signatures as equivalent to the "Written" or "Typed" or "Printed" counterparts. (Subject to a few exceptions). It also sets the framework of procedure and standards for Digital Signatures. It also defines actions that are considered "Cyber Crimes" and
suggests punitive measures. Besides, ITA –2000 has also defined the judicial system for trying and awarding punishments for Cyber Crimes.

1.5.6 Identity management: Identity management and authentication are growing in importance as Internet and wireless applications and services through e-governance become further integrated into business and consumer activities. Progress in resolving issues related to identity and authentication is essential to reach the full economic potential of the e-governance and for its expanded use in providing new services. Identity and authentication also have deep implications for commerce, public safety, civil liberties, and privacy.

Identity is a central problem for cyberspace. Digital technologies have introduced new ambiguities into the process of identification by removing an assertion of identity from any context in which we could judge its validity. There are no external clues and no opportunity for the subconscious process of judgment that often accompanies the acceptance of physical credentials. Ambiguous identities are a major source of uncertainty and risk in the digital networks that span the globe.

Reducing this uncertainty and risk has been a goal for governments and companies since the public Internet began its dramatic expansion. Now, with numerous large scale, government or transnational commercial identity authentication systems being put in place, there are emerging issues for public policy. These are problems of policy and governance, not technology. Multiple, independent actors need to cooperate to achieve success. This may not happen spontaneously. An increase in valuable network applications and the risk of online identity theft is creating consumer demand for better digital identity systems. Governments may have to issue digital identifiers to their citizens in order to reduce costs and improve the delivery of social services. Banks and large corporations may seek to leverage the ‘closed’ authentication systems they have created for high value transactions. Individuals will want to manage liability and privacy
risks by using a range of digital identities that mirror the options available to them offline.

1.5.7 Other problems: The idea that Information Technology (IT) can be an enabling force, not only for business and trade but also for government, has now been widely accepted. However, a cursory glance at the existing initiatives in India seems to suggest a mixed picture. With the exception of the Railways Reservation System, IT applications seem to have had no remarkable effect on the manner in which citizens' benefit from the services of the government.

E-readiness: The deployment of IT for furthering the priorities and goals of governance is dependent on many factors. There are many constraints on realizing the presumed potential uses of IT and these reflect the readiness of governments to appropriate IT for pursuing development. Among the most obvious and critical is the connectivity factor.

Tele-density: The aggregate figure conceals the low penetration of telecommunications capacity and a high degree of urban and regional concentration. Tele-density in rural India in 1999 was just 0.4 lines per 100 people. Rural Tele-density, which crossed one per hundred in 2002, stood at 1.49 in 2003, when urban Tele-density was placed at 15.49. Further, inter-regional variations are also substantial as shown in the following tables.

Table No. – T-1.2: Showing Telephone Density in India

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Period</th>
<th>Telephone density</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>March 1994</td>
<td>1.39</td>
</tr>
<tr>
<td>2</td>
<td>March 31, 2000</td>
<td>2.86 lines per 100 people</td>
</tr>
<tr>
<td>3</td>
<td>March 31, 2001</td>
<td>3.64</td>
</tr>
<tr>
<td>4</td>
<td>March 31, 2002</td>
<td>4.4</td>
</tr>
<tr>
<td>5</td>
<td>as on March 31, 2003</td>
<td>5 per 100 inhabitants</td>
</tr>
</tbody>
</table>
Table No. – T-1.3:  Showing Connectivity in Rural India

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Period</th>
<th>Connectivity in Rural India</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1999</td>
<td>0.4 lines per 100 people</td>
</tr>
<tr>
<td>2</td>
<td>2002</td>
<td>More than 1.0 lines per 100 people</td>
</tr>
<tr>
<td>3</td>
<td>2003</td>
<td>1.49 lines per 100 people where as of Urban it was 15.49</td>
</tr>
</tbody>
</table>

The Internet Connectivity at the end of March 2002 was 10.6 lakh Kiosks or Centres. The major reason for this is the non-availability of the bandwidth required for this purpose. The bandwidth availability in different countries is shown in the table T-1.4 below.

Table No. – T-1.4:  Showing Bandwidth Availability for Internet

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Country</th>
<th>Bandwidth Availability for people In 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>1475 (Mbits/sec)</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
<td>2639 (Mbits/sec)</td>
</tr>
<tr>
<td>3</td>
<td>South Korea</td>
<td>5432 (Mbits/sec)</td>
</tr>
<tr>
<td>4</td>
<td>Hong Kong and China.</td>
<td>6308 (Mbits/sec)</td>
</tr>
<tr>
<td>5</td>
<td>China.</td>
<td>7598 (Mbits/sec)</td>
</tr>
</tbody>
</table>

**Internet connectivity**: Even if connectivity in the form of a communications link is established, there is no guarantee that this can be viably expanded to connect India's villages to the world through the Internet. Despite its large population, the success of its IT industry and the government's stated intent of wiring India's villages, India today lags far behind many other developing countries in terms of the bandwidth necessary for people to simultaneously access information flow through the Internet.
1.5.8 **Indian Initiative:** Indian Government also form the 12 points minimum agenda for the implementation of e-governance projects.

**Minimum Agenda for e-Governance in the Central Government:** A 12-point minimum agenda was identified, in consultation with IT Managers (officers at the level of Joint Secretary) of Ministries/Department of the Government of India, as minimum Agenda for e-Governance for implementation in all the Central Government Ministries/Departments.

**1(a) Each Ministry/Department must provide PCs with necessary software up to the Section Officer level:**

Out of 74 Ministries/Departments 65 have provided PCs at all Sections in 7 Ministries/Departments the task is mostly completed, in 2 Departments the action is being taken.

PCs have been extensively provided up to the section level in most of the Ministries/Departments. In certain Departments, like Income Tax, the exercise has been extensive with the provision of 7708 PCs up to the level of Income Tax Officers.

**1(b) LAN must also be set up:**

61 Ministries/Departments have completed setting up their LAN and in 7 others it has been partially completed 6 Ministries/Departments have initiated action with regard to setting up of the LAN.

Income Tax department has extended LAN to incorporate Wide Area connectivity encompassing their regional centres.

**2(a) 100% training of all staff, who have access to and need to use computer for their office work should be ensured:**
33 Ministries/Departments have completed training for staff who have access to PCs and in 30 Ministries/Departments the training programme has been provided to most of the Staff and is either nearly completed or in a state of partial progress. In 11 Ministries/Departments the programme is underway. Departments like Income Tax, Non Conventional Energy, Planning Commission and Steel have made substantial progress with respect to staff training. Ministries/Departments have also organizing training to officers through private institutions in Delhi/ New Delhi and through NIC.

2(b) For this purpose, inter alias, Ministries/Departments should set up or share Learning Centres for decentralized training in computers as per the guidelines issued by the MIT:

41 Ministries/Departments have established learning centres or provide training in private institution or through NIC. In 29 other Ministries/Departments action has been initiated. 4 Ministries/Departments have not furnished information. Ministries/Departments located in various Bhavans will be utilizing the Bhavan Learning Centre. Few Departments have their own in-house training centre. The Cabinet Secretariat and Department of Defense have space constraints for setting up of a training centre.

3. Each Ministry/Department should start using the Office Procedure Automation software developed by NIC with a view to keeping a record of receipt of dak, issue of letters, as well as movement of files in the department:

14 Ministries/Departments have implemented OPA and in 21 Ministries/Departments it is partially implemented. In 38 other Ministries/Departments action has been initiated. Department of Biotechnology has not found suitable for implementation of OPA suitable.
4. **Pay roll accounting and other housekeeping software should be put up to use in day-to-day operations:**

In 70 Ministries/Departments this is operational. In 3 Ministries/Departments it is partially implemented. Department of Pension & PW this application has not applicable.

The implementation is quite extensive. Some departments have retailed the implementations on the Unix platform, while others have moved on to Windows versions.

5(a). **Notices for internal meetings should be sent by e-mail to the officers:**

This is operational in 36 Ministries/Departments and in 8 Ministries/Departments this has been partially used. In 27 Ministries/Departments action has been initiated. In case of Cabinet Secretariat this is not applicable as very rarely internal meetings are held and in Department Of Defense no Internet facility is available. Department of Revenue has not furnished information.

Departments like Planning Commission, Ocean Development, Biotechnology, Scientific and Industrial research, DRDO, Secondary and Higher Education, Science and Technology, Social Justice have resorted to extensive use of emails in their communications.

5(b). **Similarly, submission of applications for leave and for going on tour should also be done electronically:**

In 10 Ministries/Departments, e-leave application and its processing has been implemented and in 5 other Ministries/Departments this is partially implemented. In 55 Ministries/Departments, the action has been initiated. In Narcotics Control Bureau being a small one, intercom is used. Cabinet Secretariat this is not being used due to LAN
connection being limited on security ground. Department of Revenue has not furnished information and in Department of Youth Affairs & Sports, this is not found possible.

In Department of Heavy industry is awaiting the revision of Manual of Office Procedures. Some of the Departments are relying on the NIC Office Soft package and extensive demonstration and training on this package is required. In some of the departments this has not been possible on account of problems in the LAN. Planning Commission has implemented this through a Bulletin board. Department of Space is developing its own customized software COWAA suited to their workflow.

5(e). Ministries/Departments should also set up online notice board to display orders, circulars etc. as and when issued:

In 27 Ministries/Departments this is operational. 45 Ministries/Departments have taken initiative for issue of notices online. Department of Revenue has not furnished information. Narcotics Control Bureau being a small organization use of this facility not felt.

Planning Commission has implemented a bulletin board alert service for online notices. In Ministry of External Affairs in one Division this facility is available.

6. Ministries/Departments should use the web-enabled Grievance Redresser Software developed by Department of Administrative Reforms and Public Grievances:

In 21 Ministries/Departments, the new software has been activated. For 7 Ministries/Departments this is not applicable as such these Departments have no public dealing.

Shri Sant Gajanan Maharaj College of Engineering, Shegaon, Maharashtra
action has been initiated; and Department of Revenue has not furnished information.

In Ministry of External Affairs this is partially implemented. In Department of Defense, PCDA(P) Allahabad Web site on pension is fully operational and adequate link has been provided for forwarding individual’s pension related grievances to pension division, Ministry of Defense by providing Hyper Link with Dir (Pensions) e mail address. PGRAMS software of NIC for web based grievance redresser has been installed in 19 Ministries/Departments and Organizations. Extensive demonstration and training on this package has also been organized by NIC for its personnel and some of the users.

7. Each Ministry/Department should have its own website:

In 70 Ministries/Departments, the websites exist. In 3 Ministries/Departments, it is being developed. Department of Revenue has not furnished information.

Several Ministries/Departments, like Department of Food and Public Distribution, Administrative Reforms & PG, Information Technology etc have also taken up measures to update their websites on a regular basis. Department Of Non-Conventional Energy have launched a Bi-lingual website. The India Portal which links other websites will also be launched and it is envisaged that the websites would be rated and evaluated on a continuous basis. Such ratings would also be posted on the portal to enhance competition and pursuit of excellence. The portal will also feature the ‘site of the week’ etc

8. All Acts, Rules, Circulars should be converted into electronic form and, along with other published material of interest or relevance to the public, should be made available on the internet and be accessible from the Information and Facilitation Counter:
In 43 Ministries/Departments action has been completed. For 6 Ministries/Departments this is not applicable. In 10 Ministries/Departments this is partially available. In 14 Ministries/Departments action is being taken and at various stages. Department of Revenue has not furnished information.

9(a). The websites of Ministries/Departments/Organizations should specifically contain a section in which various forms to be used by citizens/customers are available. The forms should be available for being printed out or for being completed on the computer itself and then printed out for submission:

31 Ministries/Departments have completed the task. In 17 Ministries/Departments, this is not applicable. In 6 Ministries/Departments this is partially completed. In 18 other Ministries/Departments, action has been initiated. Department of Revenue has not furnished information. Ministry of Defense this facility is not available on security grounds.

9(b). Attempts should also be made to enable completion and submission of forms on line.

In 11 Ministries/Departments, this facility already exists. For 20 Ministries/Departments, this is not applicable. In 3 Ministries/Departments, this has been partially done. In 38 Ministries/Departments action has been initiated. Department of Revenue has not furnished information. Ministry of Defense being a sensitive department this facility is not being provided.

10. The Hindi version of the content of the websites should be developed simultaneously, as far as possible.

27 Ministries/Departments have completed action. In 9 Ministries/Departments action has been partially done. In 37 other
Ministries/Departments' action has been initiated. Departments of Revenue have not furnished information.

11. Each Ministry/Department would also make efforts to develop packages so as to begin electronic delivery of services to the public.

16 Ministries/Departments have completed action and in 28 Departments this is not applicable. In 8 Ministries/Departments the action has been partially completed. 20 Ministries/Departments has initiated action. Department of Revenue has not furnished information; in Ministry of Railways, it is not yet planned.

12. Each Ministry/Department should have an overall IT vision or strategy for a five year period, within which it could dovetail specific action plans and targets (including the minimum agenda) to be implemented within one year.

In 46 Ministries/Departments IT plans have been prepared. In 26 Ministries/Departments, action has been initiated. Central Economics Intelligence Bureau and D/o Supply have not furnished information.

The following table shows the status of implementation of e-Governance Agenda in India.
### Table No. – T- 1.5:  
**Showing Summary of Status of Implementation of Minimum Agenda on e-Governance**

Summary of Status of Implementation of Minimum Agenda on e-Governance by Various Ministries/ Departments.

(As on 6-8–2002)

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<th>Agenda 1</th>
<th>Agenda 2</th>
<th>Agenda 3</th>
<th>Agenda 4</th>
<th>Agenda 5</th>
<th>Agenda 6</th>
<th>Agenda 7</th>
<th>Agenda 8</th>
<th>Agenda 9</th>
<th>Agenda 10</th>
<th>Agenda 11</th>
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</tbody>
</table>

**Category A**: Action completed  
**Category B**: Action mostly completed  
**Category C**: Action partially completed  
**Category D**: Action is being taken or initiated  
**Category E**: Action yet to be initiated/information not received/facility not available.
1.6 Research plan:

The proposed research work has following parts –

Chapter I: Introduction:

This chapter emphasizes on the significance of customer relationship management and its potential applications in the form of Citizen Relationship Management through Centralized Information System for the management in governance. The objective, scope and limitations of the study is also dealt with here.

Chapter II: Citizen Relationship Management through Centralized Information System (CRM-CIS) – A literature review:

This chapter includes meaning, concept, application, limitations and tools of CRM-CIS as extracted from the available literature on it. The chapter also presents a review of CRM-CIS implementation in some parts of the world.

Chapter III: Shegaon Taluka – A profile:

It is presented here in this chapter a detailed study along with currently available statistics about Shegaon Taluka under Buldhana District of Maharashtra State. This includes population study, governmental and non-governmental program study, programmes implementation study. It also sketches out the population expectation profile vis-à-vis government’s service status.

Chapter IV: Research Methodology:

A detailed description of the methodologies followed for conducting proposed research is presented under this chapter. This
also presents sample demographic profile so that the research findings are looked into in the similar context.

Chapter V: Citizen’s Responses:

The data collected through survey of resident and floating population of citizens of Shegaon Taluka along the stated dimensions of the study is presented under this chapter.

Chapter VI: Insider organizations’ Responses:

The data collected through survey of organizations/offices of Shegaon Taluka along the stated dimensions of the study is presented under this chapter.

Chapter VII: Outsider organizations’ Responses:

The data collected through survey of organizations/offices falling outside of Shegaon Taluka along the stated dimensions of the study is presented under this chapter.

Chapter VIII: Analysis and Evaluation:

The data collected and presented in the preceding chapters is so analyzed and evaluated here with the help of computer applications that meaningful findings may be obtained.

Chapter IX: Conclusions and Suggestions:

This chapter presents the findings of study and make suggestions on that basis for management in governance at the Taluka level using the proposed CRM-CIS Model.
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19. ibid
CRM-CIS Model of Management in Governance

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22 ibid
23 ibid
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29 ibid
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36 http://darpg.nic.in/ManageStudy.asp accessed on 10/2/2005