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ROLE OF E-GOVERNANCE IN MUNICIPAL ADMINISTRATION

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Abstract: *The revolution in Information and Communications Technology (ICT) has brought a whole new agenda for governance into the realm of possibility. e-Governance comprises decisional processes and the use of ICT for wider participation of citizens in public affairs. Citizens are participants in e-Governance. The purpose of implementing e-Governance is to improve governance processes and outcomes with a view to improving the delivery of public services to citizens. The purpose of implementing e-Governance is to improve governance processes and outcomes with a view to improving the delivery of public services to citizens. Information Technology presents many avenues for improving governance. It has opened up new opportunities for governments to manage things differently and in a more efficient manner by utilizing information effectively and re-engineering processes. ICT tools are emerging as important instruments towards the goal of "good governance". Since local-government is a first interface between the citizens and the government, introduction of e-governance in Municipalities will assist municipal bodies to service delivery mechanism, achieve better information management and transparency and ensure utmost citizens' involvement in governance, etc. E-governance in municipalities is expected to: (a) focus on clearly identified list of citizen services that would be covered with clearly laid down service levels and outcomes that would be achieved; (b) improve efficiency and effectiveness in interaction between local–government and its citizens and other stakeholders (i.e. Non- governmental organizations (NGOs), community based organizations (CBOs), residents welfare associations (RWAs), private sectors, etc.); (c) improve quality of internal local-government operations to support and stimulate good governance; (d) bring about transparency and accountability in the governance of urban local bodies; (e) enhance interface between urban local bodies and citizens; and (f) help improve delivery of services to citizens. Against this view point, the present paper purports to review the transparency, efficiency, effectiveness, accountability and decision making in Urban Local Bodies.*

Keywords: *Information and Communications Technology, e-Governance, Municipalities, Urban Local Bodies, Transparency, Efficiency, Effectiveness, Accountability, Decision-Making*

INTRODUCTION

The revolution brought about the information and communication technology in the era of globalization and economic liberalization had induced transformation in administrative, economic and social sector around the globe. These technologies have brought a paradigm shift in the administration and governance of countries across the globe. Governments around the globe are embarrassing electronic governance. The last decade has seen India embarking on a wide range of experiments led by visionary administrators in e-governance, in their quest to use information and communication

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technologies to transform the government and governance in India.

The term 'e-government' refers to the use of ICT by government agencies to transform relations with citizens and businesses (Venkatesh, 2003; Barthwal, 2003). eGovernance has different interpretations. It implies a smoother interface between the government and the citizen's governance is nothing but good governance. The 'e' is only a tool. eGovernance is to enhance the use of the information technology and to help enhance lives of the citizens. e-Governance enables active citizen involvement by informing the citizens, representing the citizens, encouraging them to vote consulting them as required and encouraging their participation (Patel, 2001).

The National e-Governance Plan is an ambitious programme of the Government of India to make all government services accessible to the common man in his locality, throughout common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable cost to realize the basic needs of the common man. The National e-Governance Plan has transformed India into one of the world's largest e-Governance laboratories, teeming experiments at all levels of government to leverage ICT to improve governance and citizen services .

Good governance is mostly characterized by providing information to citizens, aiding entrepreneurship and supporting social and economic enterprises, maintaining transparency in governance system, aiding decision support systems for village institutions as well government administrators. Electronic service delivery is actively being considered as one of the alternative of "good governance". ICT is advocated to be very useful tool in support good governance. e-Governance and e-Governments are manifestations of these systems with a view to ease various governance and government processes to support development. It is critical for any governance system in India to cater to their needs through better and relevant government systems.

Reinventing government has been a dominant theme since 1990s, wherein governments world over are attempting to improve the systems of public service delivery. Rapid strides made in the field of Information and Communication Technology (ICT) have facilitated the reinvention of governments and prepared them to serve the needs of a diverse society. In other words, the information age has redefined the fundamentals and transformed the institutions and mechanisms of service delivery forever. The vision is the articulation of a desire to transform the way government functions and the way it relates to its constituents. The concept of electronic governance, popularly called e-governance, is derived from this concern. Democracies in the world share a vision of the day when e-governance will become a way of life. India has been at the forefront of the IT revolution and has had its effect on the public administration systems. In fact, if the potential of ICTs are harnessed properly, it has a lot of opportunities, especially, in the social and economic growth of the developing world.

OBJECTIVE OF THE STUDY

The objective of the present paper purports to review the transparency, efficiency, effectiveness, accountability and decision making in Urban Local Bodies.

DATABASE AND METHODOLOGY

The paper is purely theoretical and based on literature review, observations and discussions which have been gathered from various conferences, workshops, consultations, training programmes etc. The present paper is also based on the practical experiences which have been gathered through several years of services in various departments, Government of India.

CONCEPT OF E-GOVERNANCE

E-Governance is the application of ICT to the processes of government functioning for good governance. In other words, e-Governance is the public sector's use of ICTs with the aim:

- to improve information and service delivery,
- to encourage citizen participation in decision-making and
- make government more accountable, transparent and efficient.

The Ministry of Information and Technology states that e-Governance goes far beyond mere computerization of standalone back office operations. It implies fundamental changes in government operations; and new set of responsibilities for the legislature, executive, judiciary and citizens.

So in essence, e-Governance is the application of ICT in government functioning to bring in **SMART** governance implying: simple, moral, accountable, responsive and transparent governance.

Simple- meaning simplification of rules, regulations and processes of government through the use of ICTs and thereby providing for a user-friendly government

Moral- connoting emergence of an entirely new system of ethical values in the political and administrative machinery. Technology interventions improve the efficiency of anticorruption agencies, police, judiciary, etc.

Accountable- facilitating design, development and implementation of effective Management Information System and performance measurement mechanisms and thereby ensuring accountability of public service functionaries.

Responsive- streamlining the processes to speed up service delivery and make system more responsive.

Transparent-bringing information hitherto confined in the government documents to the public domain and making processes and functions transparent, which in turn would bring equity and rule of law in responses of the administrative agencies.

SMART governance, thus, helps in:

- improving the internal organizational processes of governments;
- providing better information and service delivery;

- increasing government transparency in order to reduce corruption;
- reinforcing political credibility and accountability; and
- Promoting democratic practices through public participation and consultation.

Different stages of e-governance are identified on certain set of criteria. These stages are:

- **Simple information dissemination** (one-way communication) - is considered as the most basic form, as it is used for merely disseminating information;
- **Two-way communication** (request and response) - is characterized with e-mail system and information and data-transfer technologies in the form of website;
- **Service and financial transactions**- are online services and financial transactions leading to web based self-services;
- **Integration** (both vertical and horizontal)- in this stage the government would attempt inter and intra-governmental integration; and
- **Political participation**- this stage means online voting, online public forums and opinion surveys for more direct and wider interaction with the government.

Another classification of e-governance has six stages of which the first two are similar to that of the above classification. The remaining four are:

- **Third stage**- refers to multi-purpose portals, which allow customers to use a single point of entry to send and receive information and to process transactions across multiple departments;
- **Fourth stage**- consists of portal personalization, wherein customers are allowed to customize portals with their desired features;
- **Fifth stage**- is when government departments cluster services along common lines to accelerate the delivery of shared services and clustering of common services; and
- **Sixth and final stage**- technology is integrated further to bridge the gap between the front and back office.

EFFICIENT ADMINISTRATION THROUGH E- GOVERNANCE

The justification for e-Government stems from an analysis of the *real* cost of obtaining Government services. It is well borne out by experience that in addition to the prescribed statutory levy and the prescribed transaction cost, securing service from a government agency, more often than not, entails any or all of the following *indirect costs* :

- Delay and uncertainty
- Lack of transparency
- Corruption

- Mistrust / ill-treatment at the offices
- Loss of wages / productivity of the citizen / business
- Cost of travel & stay at the place of service

If the government could provide its services, such that the above indirect costs are avoided, then the citizen would be prepared to avail the same even at an additional charge. Tools of Information Technology certainly have the potential of meeting the challenge. The option, clearly, is e-Government. It has the portents of providing high quality government services to citizens and businesses, of providing equal access and equal treatment to the rich and the poor, of bringing in enhanced transparency, speed, reliability and consistency in handling transactions, of opening up immense scope for offering new services, for instance **'any-time, anywhere services'** to the clientele, of making the concept of Citizens Charters a reality and, above all, of reducing the real cost of transacting with the Government.

Different ways of using IT in Governance: The word e- Government is too general. Specifically, it means using the tools of IT for enhancing the productivity, efficiency of government organizations and quality of the delivery of services. ICT applications impact upon the structures of public administration systems through technological advancements in facilitating the administrative systems through:

- Administrative Development; and
- Effective Service Delivery

ADMINISTRATIVE DEVELOPMENT

Administrative reforms, often, have focused on procedural details and restructuring of systems and processes of government organizations. The basic objective of these reforms is to enhance capacities of the systems. ICTs can be used and are being used now to give further impetus to the process. They help in the following manners:

- **Automation of Administrative Processes -** A truly e-governed system would require minimal human intervention and would rather be system driven. Automation and computerization of government offices has enabled online carrying of operations and file movements. Budgeting, accounting, data flow, etc. has become easy. This has increased the efficiency of office operations and processes and has reduced unnecessary delays.
- **Paper Work Reduction -**An immediate impact of automation would be on the paperwork. Paperwork is reduced to a greater extent with communication being enabled via electronic route and storage and retrieval of information in the electronic form. All this has led to emergence of 'less paper office'. The interconnectivity through LAN, online transfer of information and files has reduced the physical movements and consumption and storage of huge piles of paper.

- **Quality of Services-** ICT helps governments to deliver services to the citizens with greater accountability, responsiveness and sensitivity. Quality of services improves, as now the people are able to get services efficiently and instantaneously. As volumes of transactions and information can be electronically handled and delivered over a wider area through the net and web, qualitative services become possible in least time, in least cost, in least difficulty and in greater convenience. By ensuring online redressal of grievances the accountability of officials is ensured. They have become sensitive to the issues affecting people. Monitoring by way of video teleconferencing has further facilitated central monitoring, reporting and face to face communication that has assured effective service delivery by the officials.
- **Elimination of Hierarchy-** ICT has reduced procedural delays caused by hierarchical processes in the organization. Through Intranet and LAN, it has become possible to send information and data across various levels in the organization at the same time. Computerization and communication patterns facilitated by ICT have increased efficiency and have led to the involvement of all levels in decision-making.
- **Change in Administrative Culture -** With e-governance, public actions coming under public glare would certainly induce norms and values of accountability, openness, integrity, fairness, equity, responsibility and justice in the administrative culture. Rather, administration would become efficient and responsive.

Effective Service Delivery- ICT plays an important role in effectively delivering services to the people. ICTs ensure:

- **Transparency** by dissemination and publication of information on the web. This provides easy access to information and subsequently makes the system publicly accountable. Also as web enables free flow of information, it can be easily accessed by all without any discrimination.
- **Economic Development** by reductionin transaction costs, which makes services cheaper. For example, rural areas suffer on account of lack of information regarding markets, products, agriculture, health, education, weather, etc. and if all this could be accessed online would lead to better and more opportunities and thereby prosperity in these areas.
- **Social Development –** by empowering citizens through information allowing them to participate and voice their concerns, which can be accommodated in the programme/ project formulation, implementation, monitoring and service delivery. Web enabled participation will counter the discriminatory factors affecting our societal behavior.
- **Strategic Information System-** by providing information to the management regarding all aspects at every point to make routine as well as strategic decisions. ICTs effectively enable putting such strategic information systems in place.

ICT has an important role in governance. In order to harness the benefits of ICT maximally, we need to develop sufficient and adequate infrastructure, provide sufficient capital and investment, enable easy and wider accessibility and generate ample and skilful human resources. These are some of the immediate and pertinent challenges to effective implementation of ICT and e-governance.

Keeping in view the importance of the above subject an attempt is being made through this manual to give an outline on various strategies for adopting e governance in the administrative functioning. Though the book in not complete in itself but an attempt has been made to briefly put forth the concept, its technological aspects, best practices and roadmap for adopting e-Governance.

ISSUES AND CHALLENGES IN E-GOVERNANCE

Transformation: Transforming – rather than simply automating- government in the interaction of People, Processes and Technology the ratio as a thumb rule in terms of efforts involved is 40 % on business process re engineering alone, 35 % is on account of Change Management, 20 % on account of Technology used and 5 % could be on other factors or luck for its success. Rules will need to be re written because of the opportunities provided by computer processing power and the connectivity in a network. It is necessary for the senior management to get involved to look very closely at this aspect before finalizing the user requirement.

Roles: Reexamining and recommending how public and private organizations will work together in all levels of electronic government?

This is the most interesting aspect of a solution attempted. How much of the front end processing could be outsourced? Ease of monitoring of performance gives opportunities to involve private initiative in partnership with the Public structure. This also ensures sustenance of any initiative by involving a motivated stakeholder.

INFRASTRUCTURE: ADDRESSING PRIVACY, SECURITY, AUTHENTICATION AND ARCHITECTURE

There is need to build up very tight security system for managing the data centers and the databases. Certifying Authorities under the Information Technology Act need to be notified for taking care of authentication and non-repudiation issues using the Public Key Infrastructure. This is most useful when implementing the e payment modules and for getting certain certification done for Land Records or Birth/Death registration

Information: Determining the content, format and accessibility of information and transactions. Language interface would ensure full participation of all concerned within and outside the Government departments. Meta data needs to be centrally defined in the form of citizens, addresses, localities, offices, departments & employees' masters for development, updating and making them available to other applications. Organization structure needs to be defined for data ownership and responsibilities on access etc. Integration tools need to be defined and notified in advance for answering the interoperability issues arising later on.

e-Governance Trends: Governments around the globe are awakening to adapt the Internet technology for e-government; some countries show more resilience in adapting the technology and some are slow in the process. United Kingdom launched UK online in September 2000, with an aspiration of becoming the world's leading knowledge economies. As a major initiative, a network of almost 6,000 UK online centers is established to allow the people to access and familiarize with the online services. Australia (particularly the state of Victoria) and Singapore are the early adapters of e-Governance, because they were quicker to the draw. Canada's e-Governance approach is on par with the U.S. Canada's approach to e-governance is different from that of the U.S. For online services, U.S. focuses more on the business client at the federal level whereas Canada focuses on key services for both citizens and individuals in a more decentralized way. Several key trends are emerging in e-governance around the world.

Government's Performance: Pressure is mounting on the government to reduce the operating cost. At the same time citizens expect an improved service from the government with more flexibility and efficiency, and without any premium rate for the additional services. Service delivery mechanisms are undergoing fundamental change and moving toward citizen-centered government.

Growing number of digital citizens: Internet access is now commonly available for millions of people around the globe. The common man's skill level in using the digital technology is increasing may be with a gradual and marginal increase in developing countries. Digital citizens are moving from passive consumers of government services to active consumers.

Networking Technologies: Internet technology is available in more than 150 countries with an increased bandwidth provision. This makes the citizens to believe "anything is possible"! Consequently, government's traditional monopoly structure is threatened by the virtual worlds and the industrial-age structure is currently undergoing a change because of the networked technologies. Moreover, the technology is eliminating the boundaries between and within the government branches.

For developing countries, lack of vision and cultural issues are hindering the progress in e-governance. Despite the high level of technology penetration, the gaps between digital haves and have-nots are growing in an exponential manner. The countries, which are slow in adapting e-governance, have a lot of work to do in getting services and transactions online. The following section discusses the e-governance issues in terms of technology, management of change related, and funding issues.

Technology Issues: A close analysis reveals that there are three fundamental issues to be addressed in technology. They are the infrastructure layer, application layer, integration technology (e-Company Owner's Manual, 2001) and application software. The technologies and services for networking in e-governance is the infrastructure layer. This is about hardware and software required to generate a web site, as well as where the equipment's location and who looks after it. Application layer is made up of software and services that either extend the site's performance or make it easier

to manage. The integration layer is to use the Internet to tie together practically all the traditional disciplines associated with various services provided by the web site. Application software is the software that performs the functions of a web based information system (Nickerson, 2001).

INFRASTRUCTURE LAYER

The various core technologies in the infrastructure layer are given in the following section:

Carrier: The most basic issue is how the site will connect to the Internet. Internet connections are provided by ISPs (Internet Service Provider). The bandwidth requirement for the site is the main issue; big web operation might opt for a direct fiber-optic connection that can carry as much as 2.6 billion bits per second.

Hosting Center*:* This is the question of where to house the gear powering to the web site. As bigger firms opting to build specially designed equipment rooms, e-governance also may look for co-location services, which are specialized, cost effective facilities for hosting the equipment and to connect to the Internet.

The next issue is the choice of core hardware and software that every Internet operation requires. The core elements are router, web server, application server, database server, and storage system. Information travels on the Internet in packets through routers, which help to receive and send the packets going to and from web site. Web server is the physical computer that runs a web site. Web server software is pretty generic and it delivers web pages created in HTML, the basic language of the web.

Application servers are capable of running the programming languages such as C++, Java, and Perl and generating dynamic information pages. Database servers extract data from the databases and serve it up fast to the clients. The data is stored in hard drives with capacities from 10 gigabytes to 2 terabytes. The systems connect to database servers via high-speed network switches.

For the uninterrupted operation of the web site, three more layers of infrastructure are needed: load balancing, security layer, and caching. Load balancing regulates the traffic generated by the incoming requests to the servers. Load balancing software handles information requests with the most available capacity in order to avoid "server busy" messages. When web server jumps up against its performance limits, especially when the server has to extract too much information during the peak traffic, the cache gives a helping hand by storing frequently requested information.

BASIC APPLICATIONS LAYER

The core technologies in the basic applications layer are content management system, personalization, transaction engines, site analysis, campaign management, and customer support. Content management system makes it easy to create and organize web content especially with thousands of pages and lots of interchangeable words and images. Other

features of content management system are server caching and analysis of web site traffic. Personalization system stores the visitor/ citizen profile while they visit the site.

The system prompts the visitor to give their profile on voluntary basis. Also it tracks the visitor's visits. Transaction engine allows the visitor to configure his/her request and facilitates to pay by credit card or other means. Also it manages the service and visitor information, and it facilitates to have a real time link with a third party such as a credit card company or a bank. As web can reveal more about its visitor behavior than any other medium, most servers collect and store enormous amounts of information about how many page views they serve. Besides, site analysis system stores information such as how many visitors came in every month, how long they stayed on the site, and what they looked at. Campaign management system goes beyond the site analysis and helps to launch certain marketing efforts, such as automated email that responds instantly. Customer support system gives a helping hand to a visitor who has trouble using a site. The system gives automated help with the human touch.

INTEGRATION TECHNOLOGY

The core technologies in integration are application integration, sales integration, and financials. Application integration enables the user to talk with the "legacy" system, which is a non-Internet system. For example, a web site gives the front-end interface to access to various services. To complete the request the back-end systems are to be integrated. This kind of integration is provided by available "Enterprise Application Integration" software. The integration technology bolts together those non-Internet systems and Web operations. Sales integration collects all sales data in various government centers in real time and provides remarkable opportunities to forecast and track the visitors. Once the transactions are completed over the web, the transaction details are to be plugged into accounting system. This is facilitated by financials system.

APPLICATION SOFTWARE

The visitor interacts with the application software when entering input into an application program and receiving output from the program. The application software also performs the processing and storage functions required by web based information systems. In developing e-governance application software plan, a three-step approach is proposed. The steps are given in terms of the following questions.

Where are we?

Where do we want to go?

How do we get there?

Where are we? Analyze the existing status of application development in government organizations. Identify functional areas in every government organization for which the application software is developed. Identifying the systems for which the application software is not yet developed is also a primary task.

Where do we want to go? The fundamental question here is "What kind of governance do people want in the next millennium?". By e-governance, we are trying to utilize Internet technology to reshape the way people live, communicate, and work. The mission could be to deliver the government information and government services online.

How do we get there? New and innovative Internet business models are to be created in e-governance context to intertwine the relationship between people and their government.

The one between the government and citizen as the major stakeholder in developing the application systems, and the other between the government and the citizen as customer of public services. Moreover, the information systems strategic plan is to be linked with the government plan. The implementation can be done in progressive stages such as getting online with an Internet Web site, providing electronic content distribution (news, directories, and documents), implementing financial transactions such as tax or license payments, and finally a full-fledged public service delivery system.

Management of Change related Issues: It is important to investigate how the business of government and the nature of governance itself change in the digital networking economy (Tapscott, 1999). Before moving to government-online, it is worthwhile to look at the whole political process and review them constantly. Critically questioning the policy formulation processes in view of e-citizen expectations is a major initiative in e-governance. Ultimately the objective of the process reengineering is to rethink the value propositions of the government and how they function in serving the citizens. The major goal is to change the behavior of governments.

Process Reengineering: *Reengineering the government structure:* In developing and developed countries, the traditional model of governance is the industrial age bureaucracy. The old industrial models should give way to new virtual communities to provide a more value-added service to the e-citizens in a networked environment. The structure of existing government departments, work processes regulations or legislation are the major impediments to the success of government-online services. This calls for a fundamental change to the government business model.

Involving e-Governance Communities: The e-governance community can provide a significant amount of inputs in handling the political issues. The inputs will help the policy makers to look at the problem in a whole new perspective. This will eliminate the government's biased look in the whole legislation process. The existing web applications in most of the government sites simply provide information and the sites should extend the services to include payment and confirmation of receipt. Involving citizens and government lawmakers in the planning process of launching a government site will bring more transparency and access to data. Also, it will ensure the government services to evolve into a form which is more citizen driven.

Managing the change in responding to digital economy: To provide government information and services online, use the network technology to flatten the bureaucratic

processes of government. The people related and structure related changes are to be managed in the subsequent stages. Successful management of changes in adapting to the digital economy not only gives a better and cheaper government but also a very different government. The different government services may be provided to the citizens through a single window. For example, if someone losses his job, he has to deal with the employment agency, the social security department, Inland Revenue and local authority. Instead, providing the information with one agency only once, the same information will be passed on to other agencies concerned through online. A strong political and organizational will is required to handle cultural issues, which may slow the process of changes.

Funding Issues: Around the world, governments provided funding for the select pilot projects on government on-line, including projects such as public works, government services, and human resources. The real challenge for the government is to go about funding the full range of initiatives in order to achieve the objective of "Government Online". One suggestion is that the concerned department has to come up with adequate fund by themselves. Other issue is utilizing the available resources both in the plan sector and outside it. The leveraging of resources from the ongoing projects can be made without any critical incremental cost to the proposed project. The private sector resources have to be utilized with their commercial interest and those of the government in a more collaborative way to provide value-added service to the e-citizen. The information kiosks by themselves can generate revenue by providing key services.

For example, in Gujarat, India, the interstate check post generates major revenue by providing its services online. The increased revenue generation can have a snowball effect to lead to further computerization. Local government can take initiative in investing in IT infrastructure.

For example, in Andhra Pradesh, India, a grand plan for IT infrastructure envisaging to connect every mandal or taluka headquarters with broadband fiber optic or wireless links to a state wide network called AP State Wide Area Network (APSWAN). A fiber optic backbone with 2 Mbps capacity has already been inducted, free of charge from BSNL to link 25 district head quarters with the state secretariat in Hyderabad. Within another three years, the state government is going to network 1200 mandal headquarters and the network will be used for voice, email, and video communication for effective and efficient administration in health care and education. In the next stage every village will be connected via wireless and dial up access. Accordingly, each state government is expected to strengthen the infrastructure in this manner for the project of "Government Online".

The biggest challenge is the pressure to decrease the government's operating costs and improves services to the citizens. Even more challenging, new expectations are being created as digital consumers discover what all possible to do. e-Governance involves not only managing technology but also managing organizational change.

To develop e-governance applications the challenges are greater visibility of applications, financial constraints, bureaucratic processes and unavailability of skilled people in advanced networking technologies. Shortage in skills availability to develop integrated applications and limited view of what is important for a citizen, lack of project management skills, inadequate risk assessment and management skills are the major impediments for "Government Online".

Countrywide networking may enhance the risk of implementation constraints such as non-compatibility of software and hardware at different sites, customization needs of certain locations, and overlapping across several departmental boundaries

In adopting the Internet technology, the government may face organizational and management challenges that impede e-Governance success. In developing countries, the Internet penetration is relatively low compared to that of developed countries. The spread of the Internet in India has been slow, because there are only a few commercial service providers. Moreover, the Internet users are small in number compared to that of developed country. Creating information kiosks at various places is a solution to this problem. Net users in developing countries are highly educated group and high-income young males. So the government's online services may not reach the other segments in the society. Achieving home Internet access for everyone will be another challenge in strengthening the infrastructure. Flattening the industrial age bureaucracies of the government system will be another major challenge. Even for developed countries, there are biggest challenges ahead hampering progress in both Canada and the U.S. They are rapidity of technological change, shortage of IT staff, and lack of training for government staff, security and privacy issues, organizational and political roadblocks, cross-jurisdictional service delivery and the uncharted territory of e-channel management.

The e-governance plan should aim to achieve universal Internet access. Initiatives are needed to promote access at home, at work, and in the community. Establishing government online centers in public places such as libraries will accelerate the IT penetration rate. Through the existing infrastructure, distribution of government information, encouraging the citizens to visit the sites, opening online relationship with business partners, delivering online services and financial transaction services are to be commenced.

Other growing work place trend comprises of flexible work place arrangements such as telecommuting, in which employees may work in nontraditional schedules from remote work places. Leaders and managers will need responsive, technology-fueled management tools for their administrative efficiency.

Local governments should make use of existing investment in IT infrastructure and expand their e-Governance efforts for a better connectivity between citizen and government. The government processes should be reengineered before launching a web site for eGovernance. Starting pilot projects by a local government will set examples for other government. Citizen perspective should drive the e-governance application systems development. Because with the vast increase in information availability, the

citizen's ability to share knowledge became manifold and they are empowered as never before. e-Governance success will be achieved by involving the citizens, infrastructure providers, government lawmakers and other stakeholders.

e-Government and e-Governance are key challenges for governments today as they involve multiple stakeholders and multiple processes and demand considerable coordination and collaboration as well as managerial and financial resources.

e-Government involves the management of programmes, processes, knowledge, resources, technology, procurement and expectations. In e-Governance the 'People' dimension is critically important. People, process, technology and resources are the four pillars of e-Governance. The challenges to e-Governance, therefore, relate to people (e.g. lack of political will, official apathy, shortage of champions, lack of skills in government etc.); process (e.g. lack of process models, status quo-ism, poor legal-institutional frameworks, complex procurement etc.); technology (e.g. lack of architecture, lack of standards, poor communication infrastructure and hardware-approach etc.) and resources (e.g. budget constraints, disinterest of the private sector, lack of project management skills on the part of public mangers etc.). The key considerations in e-Governance are described below:

e-Governance Imperatives

Process →	Simplicity	Efficiency	Citizen-centricity	Sustainability	Cost-effectiveness
People →	Vision	Leadership	Commitment	Competency	Change
Technology →	Architecture	Open Standards	Reliability	Scalability	Security
Resources →	Holistic	Efficient	Service-oriented	Sustained	Adequate

E-GOVERNANCE DESIGN

e-Governance practices across the world point to some key strategies for the successful design and implementation of such projects. These deal the aspects of planning, process re-engineering and implementation. Drawing from international experiences, the following suggestions can be prescribed for three phases of e-governance projects:

PUBLISH

- Begin with a strategy to get information online, with appropriate milestones.
- Post information of value to people in their daily lives, and emphasize local language content.
- Consider a mandate that all agencies publish a specified range of information online.

- Seek attainable results using available resources.
- Design sites so they are easy to maintain, and sustain funding to ensure that information is updated regularly.
- Focus on content that supports other goals, e.g. economic development, anti-corruption, attracting foreign direct investment etc.

INTERACT

- Show citizens that their engagement matters, by informing them of the outcomes of their online comments.
- Break down complex policy issues into easy-to-understand components.
- Be proactive about soliciting participation; use traditional media to publicize online consultations.
- Engage citizens collaboratively in the design phase.

TRANSACT

- Target audiences that will have immediate use for the online services.
- Enlist the support of potential users of the site and address the concerns of government workers whose role will change due to the innovation.
- Integrate e-government with process reform, streamlining and consolidating processes before putting them online.
- Recognize that initial investments in transact systems can pay off over time in terms of cost savings and increased revenue.
- Create a portal for transact services.

FIVE KEY ELEMENTS CAN BE IDENTIFIED AS COMMON ELEMENTS IN THE CASE OF SUCCESSFUL E-GOVERNANCE PROJECTS:

PROCESS REFORM

- Plan carefully – streamline and consolidate offline processes before putting them online.
- Don't automate inefficiencies – eliminate them.
- Respond to local needs – draw on the ideas of those who will use the system and enlist their support.

- Try to focus projects from the user perspective.
- Dispel resistance of civil servants by training/incentives to support reform.
- Ensure commitment of resources for the long-term.

LEADERSHIP

- Create an office and designate a senior official as a focal point for e-Government innovation, planning and oversight.
- Signal highest political support for the initiative to ensure that all relevant departments and agencies support it.

STRATEGIC INVESTMEN

- Define clear goals.
- Catalogue available resources, ranging from funding to personnel.
- Make short and long-term plans, with expected expenditures, income streams and deadlines.
- Designate an officer or organizing body to oversee planning and budgets.
- Consider multi-technology approaches. Some communities may not be ready for the Internet, but other technologies like radio may better serve their needs.
- Consult with local communities to ensure that they benefit from technology.

COLLABORATION

- In the planning phase, establish a consultative process that includes opportunities to hear from and speak with business, NGO's and other government agencies. Explain the goals of e-initiative and solicit suggestions.
- Take private sector advice and experience into account when designing systems. Respond to identified needs.
- Create incentives for private sector to become active participants in reform.
- Encourage cooperation and integration between departments/ministries of government.
- Local champions will help projects succeed. To decrease skepticism in local communities, directly involve local leaders by making them representatives, and by teaching them IT skills they can pass on to their communities.

- Create local ownership. In conjunction with the establishment of a local management committee or body, handover of e-government projects should occur as soon as possible.
- Central ministries and state and municipal agencies and authorities need to partner to ensure a smooth reform in services.

CIVIC ENGAGEMENT

- Consult widely in designing systems.
- Design applications that are focused on the citizen.
- Combine e-government with legal reform efforts such as requiring public notice and comment in legislative and regulatory processes.
- Keep in mind differences in local culture when seeking to engage citizens.
- Design engagement opportunities that build on successful models.

REFORMS FOR E-GOVERNANCE (MANDATORY FOR ULB LEVEL)

e-Governance is a form of public administration making "use of information and communication technologies (ICT) to enhance the access and delivery of government services to benefit citizens, employees and management of urban local bodies." It aims to "help strengthen government's drive toward effective governance and increase transparency to better manage social and economic resources for development."

Government of India (GoI) has launched a National e-Governance Plan (NeGP). NeGP intends to institute and enable mechanisms to improve the system of governance and thus provide better services to the citizens by effective use of ICT. The formulated National e-Governance Action Plan of India attempts to address many of the key issues of e-Governance in India with a view to harnessing the power of ICT to improve governance for the common citizen. The structure of NeGP (2003-07) encompasses a set of core policies to provide integration and support, a set of integrated projects or cross-cutting initiatives, a set of Mission Mode Projects at national and state levels.

Design of NeGP

Central Government Projects	State Government Projects (Sub Program)	Integrated Projects
• National ID • Central Excise • Income Tax • DCA 21 • Passport/ Visa & Immigration • Pensions	• Land Records • Property Registration • Transport • Agriculture • Municipalities • Gram Panchayats • Commercial Taxes • Treasuries • Police • Employment Exchange	• EDI • e-BIZ • Common Service Centers • India Portal • EG Gateway • e-Procurement • e-Courts

Program Components		
• Core Policies • Core Infrastructure • Support Infrastructure	• Integrated Services • Technical Assistance • HRD & Training	• Awareness & Assessment • Organization Structures • R & D

The National e-Governance Action Plan demands wide-ranging reforms in governance processes. Simple automation of processes does more harm than benefit. The syndrome of "garbage in – garbage out" will operate if complicated processes are automated without simplification and establishing their usefulness for the people. Thus, process reforms hold the key to successful e-Governance. e-Governance in municipalities is one of the Mission Mode Projects under the NeGP, which is expected to result in improved service delivery by local governments for the citizens. Implementation of e-Governance reform was one of the mandatory reforms under Jawaharlal Nehru National Urban Renewal Mission (JNNURM). Further, e-Governance reform is also another very important reform in Atal Mission for Rejuvenation and Urban Transformation AMRUT. Under AMRUT, the following components are included:

1. Creation of ULB website.

2. Publication of e-newsletter.

3. Support Digital India. Coverage with E-MAAS (from the date of hosting the software):

- Registration of Birth, Death and Marriage,
- Water & Sewerage Charges,
- Grievance Redressal,
- Property Tax,

- Advertisement tax,
- Issuance of Licenses,
- Building Permissions,
- Mutations,
- Payroll,
- Pension,
- e-procurement,
- Personnel Staff management and
- Project management.

The broad aim for implementing e-Governance in municipalities is to:

- Focus on clearly identified citizen services that would be covered with clearly laid down service levels and outcomes to be achieved.
- Improve efficiency and effectiveness in interaction between local government and its citizens and other stakeholders.
- Improve quality of internal local government operations and management information systems to support and stimulate good governance.
- Bring about transparency and accountability in urban local body operations.
- Help improve reach of the delivery of services to citizens.

Following services are to be covered under this reform:

- *Basic citizen services*: Birth and death registration and health programs.
- *Revenue earning services*: Property tax and licenses.
- *Development services*: Water supply and other utilities, building plan approval.
- *Efficiency improvement services*: Procurement and monitoring of projects.
- *Back office improvements*: Accounting and personnel management system.
- *Monitoring*: Citizen Grievance redressal.

The key objectives of the e-Governance initiative are to:

- Provide single window system for delivery of services and information to citizens.
- Provide integrated and simplified services to citizens on anytime, anywhere basis.

- Decentralize service delivery and improve accessibility of information to citizens.
- Increase the efficiency and productivity of ULBs.
- Re-engineer processes for better service delivery.
- Integrate data and services of various departments.
- Enhance efficient inter-departmental coordination.
- Provide timely and reliable management information relating to municipal administration for effective decision-making.
- Adopt a standards-based approach to enable integration with other related applications.\

RATIONALE FOR THE REFORM

The recent advances in ICT and the Internet provide opportunities to transform the relationship between governments and citizens, as well as contribute to the achievement of good governance goals. e-Governance will ensure that the interface between citizens and ULBs is made smooth and resolves the problems encountered by people at present. The use of ICT can help greatly in improved service delivery, decentralization, better information management and transparency, citizen involvement in government and overall improvement in urban governance across departments and at all levels. The benefits of e-Governance will be for citizens, ULBs and management:

For Citizens

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

For ULBs

- Common information base across departments on a single integrated platform.
- Better co-ordination between departments and agencies.
- Improved communications.
- Creation of effective management information system (MIS).
- Better mobilization and utilization of resources.
- Improvement in revenue collection.
- Efficient citizen grievance redressal.
- Overall improvement in governance, delivery of services and citizen interface.
- Objectiveness in decision-making.

For Management *(Mayor, Commissioner, Standing Committee)*

- Availability of standardized and meaningful MIS on timely basis across all departments
- Appropriate and timely analysis and decision-support mechanism.
- Ability to monitor and track programs, services, and revenues effectively and on a timely basis.

CONCLUSION

The following are the key outcomes of this reform:

- Citizens: Easy access to municipal services, hassle free payment of taxes and user charges, quick redressal of grievances.
- Municipalities: Improvements in efficiency and effectiveness of business processes/functions of ULBs.
- Decision-makers: Improved information for planning and decision-making.
- Employees: Improved efficiency and better delivery of urban services.
- Policy makers: Integrated view of performance of municipalities at the center, state and ULB level.
- Reduction in time-lag in delivery of services, viz. issue of birth and death certificates, assessment & collection of property tax, payment of utility bills, etc.
- Enhanced interface between urban local bodies and citizens.
- Transparency and accountability in the governance of urban local bodies.
- Improvement in quality of internal local government operations to support and stimulate good governance.

- Key performance indicators-based decision-support systems for reports and analysis using intelligent platform

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