Chapter 4

E-governance in Gujarat

(4.1) INTRODUCTION -

In 1999 Gujarat preceded first step towards E-governance by formation of IT cell under the general administration department. In later years GIL was formed as nodal agency to develop, design and promotes E-governance in the state. In 2002 department of science & technology established for E-governance development. In 2001-2002 Gujarat state established Gujarat state wide area network for connecting whole state through single network. In 2004 Gujarat announced IT policy for development of ICT. In past years Gujarat has achieved tremendous growth in IT and E-governance and recognized by various national and international agencies.

Gujarat state has been moved in the new direction towards E-governance. Also Gujarat has established itself as one of the favorable destination state for industries and achieving height as one of the most industrialized state of India.

With annual growth of 6 to 8 percent and 16 percent of country total investment as contribution Gujarat is one of the leading state with highest potential state and good infrastructure.\(^73\)

Gujarat is investing in the field of ICT and computerization of work culture, and use of E-governance process in information and

\(^73\) www.vibrantgujarat.com
service delivery to end user. Government process is hectic and not worthy so far because of its hierarchical nature and E-governance system is responsible for changing traditional working to ICT enabled working and computerized process. Most of the services are citizen centric in Gujarat also need to concentrate on industry centric.

Need of industry includes single point facility, 24X7X 365 connectivity with convenient and transparent environment. Gujarat government providing better infrastructure for industrial sectors but still single E-governance is missing, although diverse systems are available with collaboration with central government project NeGP\textsuperscript{74}.

In Gujarat industrial sector has no obstacle and hurdles in adopting E-governance process and they are ready to adopt with PPP model also they have atomized their internal working but government process are not pacing with industries. Government departments are lagging behind due to lack of funds, less zeal of bureaucratic and political system\textsuperscript{75}.

In Gujarat study shows that 91.84\% national, 64.79\% state and 45.82\% local project are being used by industrial sectors\textsuperscript{76}.

The state is also improving working capabilities of each government department with increasing the level of computerization, ICT enabled services and IT literacy among employees. According to official websites of Gujarat government it is aimed towards-

\textsuperscript{74} National E-governance plan
\textsuperscript{75} Statement of Vice president, GIDC Director and GPCB Director
\textsuperscript{76} Details are shown in chapter 5 and chapter 6
(1) Growth and development of new and emerging technology with increased use of ICT in government department to delivery of services to citizen at their own place.

(2) Promoting the information sharing concept for making system more reliable and increased use of participation of citizens.

(3) Arising in L2 stage in ICT which is categorized based on environmental uses of applications.

In Gujarat various E-governance projects are successfully running for end users. To enshape the potential of E-governance, computerization and ICT Gujarat government has taken various initiatives’ towards success of E-governance. These initiatives’ are directed towards strengthening the E-governance. Also Gujarat government molded E-governance towards empowerment of socio-economic status of citizen and providing communication path between Government and business.

(4.2) E-governance infrastructure in Gujarat-

(1) GSWAN- It is ICT infrastructure that connects 225 of 26 districts to state capital Gandhinagar. It provides multiservice based voice, data and video transmission over IP based backbone. In sachivalaya faster Ethernet is main component to connect the systems in sachivalaya. GSWAN also connects and integrates different server like web server, DNS server (for govt. Dept.), mail server and database server that handles and store the data. According to Gujarat govt. ICT implementation and GSWAN emphasis on the state-of-the-art open standard convergence network that has succeeded in creating, operating and maintaining required state wide ICT infrastructure anywhere in the
state. GSAN connects various govt. offices, boards, govt. corporations throughout the districts and talukas to state center with 2 GB to 4 GB speed. Initially this speed was 64 KB to 2 MB. GSAN network architecture is 3-tier architecture mentioned as below-

Above pyramidal structure every level is connected with router that terminates the leased line and messages are routed throughout the network intelligently. Basically GSAN is information super highway that facilitates intra organizational communication. One of the best facilities of GSAN is video conferencing among state, district and talukas.
It provides network facility for state E-governance projects like-

- E-Dhara.
- HMIS (Hospital Management information system).
- VATS (Value added tax system).
- HD-IITS (Home department integrated It solution).
- IFMS (Integrated finance management system).
- Sachivalaya integrated communication network (SICN).
- Integrated workflow and document management system (IWDMS) etc.

(3) **Gujarat state data center/server form (GSDC)** - This is initiative taken by Central government under NeGp. In Gujarat this center is setup in Gandhinagar. Gujarat state data center is mediator between Governments’ sensitive data and public domain, this is shown as below-

**DIAGRAM - 5**

**GSDC’s main features are**-

- Central repository of the data for state.
- Secure and protected data storage from illegal access and accidental loss.
- Online delivery of citizen information, service through portal.
- State intranet portal.
- Recovery from any harm, breakdown or failure.
- Minimize overall cost of data storage and implementation of system.

(3) Gujarat Informatics Limited (GIL) -

URL- www.gujaratinformatics.com


In 1999 Gujarat government established Gujarat Informatics Ltd. (GIL) as a milestone in the path of ICT development, promoting and accelerating E-governance in Gujarat. It is Nodal agency of government that is continuously engaged in design, development and implementation of IT and E-governance in the state. For better performance it has collaboration with top most companies of India and world like Reliance, Microsoft etc.

GIL is developing network infrastructure in the state with development of –

- Gujarat state data center
- Sachivalaya integrated communication network (SICN)
- Gujarat state wide area network (GSWAN)
As discussed in this chapter these all are infrastructural components of Government network for E-governance.

E-governance initiatives of GIL are as below. Since these projects are not industry oriented hence these are discussed in short.

(4.3) Citizen centric E-governance projects of Gujarat -

(4.3.1) E-city -

**URL**-http://egovamc.com/

**Nature**- Citizen Centric

It is E-governance project for Ahemdbad city launched by Revenue department of Gujarat State. This project is citizen centric project for providing information and service to citizen at their door step, in their area.

The services provided by this project to citizens are-

- Complaint registration.
- Building permission from AMC.
- Birth and death certificates
- Issuing shop license, health and hawker’s licenses.
- Hording permission.
- Payment for Property tax, professional tax etc.
- Water tax payment.
This system is working with transparency and fulfilling needs of citizens. Whole local system at city level becomes responsible to citizen and providing 24 Hrs service for access to citizens.

(4.32) **E-Dhara**-

**URL**- http://e-dhara.gujarat.gov.in

**Nature**- Citizen centric

Land records are maintained for various purposes including the levy and collection of various taxes and land revenue. Any changes brought on by sale, inheritance, hire, and distribution, etc, are brought into record by the manual updation done by the talati at the village. However, the manual system of record keeping has become cumbersome, opaque, susceptible to manipulations and hard to administer. Therefore, e-Dhara land records management system was conceptualized to manage land records by using information technology (IT) as a tool. The envisaged system was designed to provide prompt assurance of computerized RoR across the counter and online updation of land records.\(^77\)

Land record system E-Dhara is computerized system equipped with ICT. It maintains records of land owner, records of sale, transfer, lease and hire i.e. all manipulation with land record are entered in computerized system.

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\(^77\) “Vilasini Ramachandran” Secretary, Revenue Department, Government of Gujarat
In 2004 Department of science and technology developed a multilingual solution for automating the functions of all state departments. This solution was named integrated workflow and document management system.

Key points of this E-governance system are –

- It introduces common platform for processing of documents in all government departments.
- It maintains unique file number across all departments of government. That helps in tracing file. Also file can be traced by subject of file, data and departments. It also maintains pending status at any level of government.
- Reduces physical file transformation from one desk to another.
- It also helps in day-to-day working requirements of department like leave, bonus, advances reimbursements, transfer, promotions, departmental enquiries, service book entry management, dead stock register management etc.
- It also computerized the process of Human Resource Management, Budget and Planning, Inventory Management etc.
Current scenario of IWDMS 79- Currently maximum departments has adopted IWDBMS. Information and broadcasting department has converted near about 76.67%, Home Department has achieved 77.44%, social justice and empowerment department achieved 78.40%, finance dept is with 79.44% and industrial mineral department has achieved 82.08% automation of work culture and working with IEDMS. So we can say still need improvement in adopting IWDMS.

(4.34) SWAGAT 80 (“State Wide Attention on public Grievance by Application of Technology”) - It was launched in 2001 to connect central state secretariat with all ministers and departments, with all 25 district headquarters, with district offices and with all 225 talukas head quarters. SWAGAT program was extended up to village level in 2001 with GRAM SWAGAT.

SWAGAT is online grievance redressal of their pending grievance once a month.

It is a systematic system in which grievance applications can be registered online on 4th Thursday of the month. This system is monitored and handled by chief minister directly. At the time of interaction all officials from state to local level along with Chief Minister are present.

In this system grievance are logged in transmitted and made available online to the officers concerned who have to reply within 3 to 4 hrs. The departments concerned then have to be ready with the replies

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79 Gujarat CM fellowship.
80 www.narendramodiin, www.swagat.gujarat.gov.in
before 3 PM when Chief Minister holds video conferencing with all the districts concerned.

Applications are called one by one and Chief Minister examines each complaints and try to solve problem same day.

(4.35) **GHMIS(Gujrat Hospital Management System)**-

**USER-** Citizen and Government employee

Department of health and family welfare of Gujarat state initiated this E-governance project with state nodal agency GIL in 2006. Main objective of this project was to bring proper functioning in day-to-day operations of govt. hospitals and also real time monitoring of government hospitals across the Gujarat state.

Key points of this project are-

- Real time monitoring of govt. hospitals to provide efficient and quality health service to the citizens through govt. hospitals.
- Provide quality health service to the poor people of the state.
- Proper administration and control over hospitals.
- **GHIMS** provides quality health care by IT applications.
- It assists doctors and medical staff to improve health service with readily reference patient data, work flow enables less paper process and parameterized alarms and triggers during patient treatment cycle.
• It is beneficial for state administrators to view state wide holistic view of hospitals’ day-to-day functions, MIS, monitoring of effectiveness of national programs and identifying improvements along with loop holes.

• It is beneficial for doctors to reduce time-to-serve patients along with care for citizen’s efficient health service at hospitals due to digitized records, less waiting time, no need to carry file, online information about doctors available.

Current scenario of GHIMS- Following table shows status of GIHMS till 2013-

Table No.  – 3

<table>
<thead>
<tr>
<th>GHIMS Entity</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>33</td>
</tr>
<tr>
<td>Dental Hospitals</td>
<td>01</td>
</tr>
<tr>
<td>Mental Hospitals</td>
<td>01</td>
</tr>
<tr>
<td>Nodes</td>
<td>2500</td>
</tr>
<tr>
<td>Users</td>
<td>12500</td>
</tr>
<tr>
<td>Patients</td>
<td>2,88,88,777</td>
</tr>
</tbody>
</table>

Source – www.vibrantgujrat.com
(4.36) **E-Gram**

To develop ICT enabled infrastructure at village level this project was initiated by Gujarat government by its nodal agency GIL under the Department of Science and technology in 2003.

Key points of this project are-

- This project develops Panchayats as a telecenters or e-service access center.
- It increases community participation using ICT art ground level of government.
- It provides holistic integration of ICT at panchayat level.
- This project is supported by various digitized system of Gujarat government.
- It mainly focuses on health, livelihoods, education, social welfare and agriculture issues at village level.
- It is implemented as standalone application i.e. it works even computer is not connected to internet.
- It provides certificates for birth, death, caste, income, tax collection and BPL (Below poverty line).
- It is also connected to talukas and district centre via network of BSNL and internet connection.
- District statistical officer (DSO) is responsible for all aspects of e-Gram project.
- E-Gram project converts panchayat into gram sachivalaya as cabinet sachivalaya at state level to implement the

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concept of Gram Swraj. Man powers for gram sachivalaya are village computer entrepreneur (VCE) and gram mitra. These people populate government schemes and benefits at village level.

(4.37) **Swarnim RTO**- Under the financial and technical support and leadership of Commissioner of transport. This system was developed and started in July 2011.

Main features of this system are –

- Online submission of application. Common application for learning and permanent license is also available.

- **Online attachment of documents that has submitted with application form.**
- **Biometric capture at RTO office.**
- **Computerized knowledge test.**
- **Automated and computerized driving test.**
- **Online appointment system reduces waiting time.**
- **Simple and easy process for each step.**
- **Speedier, efficient and transparent system for transport department.**
- **System includes learning, new and renewal of driving license making.**
- **It also includes generation of duplicate and amendment in license feature.**
- **Making of international driving license.**
Problems with SWARNIM RTO system –

- Submission of paper at the time of verification.
- Comparatively waiting time is more than that of any online system.
- Delivery of document is 1 to 3 days; it should be with immediate response.
- Frequent error due to resistance towards online system by employees and less number of employees in department.
- This system is attraction of youngsters but old age and less techno friendly citizens are fed up of this system.

(4.4) E-Governance Projects/ Initiatives in Gujarat (Industry Oriented)

In Gujarat government departments and their constitutional parts maintains their website to provide information services to-

- Government departments, government agencies and government corporations.
- Business firms.
- Industries.
- Citizens etc.

Some of the websites are following basic principles of E-governance i.e. providing online services without paper work as well as two way communications but some of the websites are only informative and static in nature. Websites got many features for interaction to its user. Some features are as below-
(1) Online grievance- With this user can register their grievance online. Registered grievance is forwarded to higher level of government body. User can also track status of their grievance. Solution is forwarded to user within particular time limit.

(2) Feedback system- With this features user can give suggestions and feedback regarding service, information and contains of website.

(3) Interaction with other user- With this feature user can share their views with other users.

(4) Form downloading and uploading- These features enable user to download any type of form normally in .pdf format on their system and after filling these forms can be uploaded to website.

(5) Online payment- Some of the website provide payment through internet or any other form of online banking system.

(4.41) E-procurement in Gujarat-

Portal – www.nprocurement.com

USER- Citizen, Business, Industry

Electronic procurement system was initiated in 2004 and from 2007 it was made compulsory for all government departments. From 2010 over 168 departments and government agencies are conducting online tendering process. E-procurement is taken under department of Industry and Mines in Gujarat.

User of this portal are divided into two categories-
(1) Internal users- These are the users like department and supportive agencies who require material for supply.

(2) External users- These are the users who participate in procurement process. These are bidder, supplier and vendors. Basically these are business organizations.

E-procurement system is fulfilling all requirements of purchasing and procurement for all government departments, nigams, societies, corporations and agencies with transparency, speed, ease and efficient manner. This portal handles all the activities regarding issuing notice for tender, information regarding tender in electronic form, encrypted and decrypted process for forms with digital signature.

Main features of portal are-

- Registration and authority allocation to government officials regarding tender.
- Registration of bidder, supplier and vendors with checking of prequalification of users.
- Online tender process and online approval process.
- Tender document management. It includes verification of bidder, issuing of tender etc.
- Online/ Offline tender schedule. It includes creation of tender and approval of tender.
- Publish of tender on portal.
- Promotion of tender. It includes communication via E-mail to all external users.
Online pre meeting for bidding to involve external users for transparency.

Online submission of bid (2 bid / Multiple bid system) i.e. minimum 2 bid and maximum multiple bid can be submitted.

Online automated bid comparison with technical and commercial comparisons aspects.

Online negotiation process.

Rate and online contract management with offline bid process.

Online site access report by internal and external users.

Bid is protected by encryption process.

Transaction included in E-procurement system-

In this system following transactions are included-

- All types of purchase or work order of govt. department and agencies of goods, plants, equipments, machinery, medical and surgical products, food and civil product, printing, stationary, all types of vehicle, furniture fixture etc.

- All types of civil construction and related work.

- Training program for external and internal user.

Process for E-procurement-

Step-1 Registration of government officials.
Step-2 Approval of authorized employees.
Step-3 Registration of supplies and vendors.
Step-4 Pre tendering process.
Step-4 Publish tender.
Step-5 Download document by suppliers and vendors.
Step-6 Online Payment of tender fees. (offline also available)
Step-7 Tender amendment in case of change.
Step-8 Extension of tender issue date by authorized government person and notify by email.
Step-9 Online submission of tender with required document. Bid will digitally signed and encrypted, and also online payment gateway is available to accept payment by nationalized and private bank.
Step-10 All necessary document of bidder such as PAN card, Sales tax registration can be scanned and uploaded duly signed as part of bid.
Step-11 Online checking of status of bid by bidder.
Step-12 All received bids are stored in a digital time box and can only open by authorized committee on due date and time.
Step-13 Whole process remains hidden from each other.
Step-14 All bids are compared technically and commercially if need and opened.
Step-15 Online issue of contract to lowest ate bidder.
4.42 Gujarat commercial tax Portal-

URL- www.Commercialtax.gujarat.gov.in

Users- Business/ Industries/Citizens

The finance department of the government of Gujarat has the commissionerate of commercial tax as the nodal agency for management of all types of taxes in the state of Gujarat. This agency is responsible for collection and administration of various taxes like- Sales tax, Value added tax professional tax, luxury tax, CESS and entry tax etc.

Features of this portal are-

(1) Online registration of VAT, CST.

(2) Online tracking status of application.

(3) Online registration of dealer.

(4) Online dealer management it includes- searching dealer, cancelled dealer, suspended dealer etc.

(5) Online CST form validation.

(6) Online TDN registration and tracking status.

(7) Online tatkal registration.

(8) Online payment and offline payment for fess deposit.

(9) e-Return yearly/ quarterly as per mentioned in act.

(10) Digitally signed CST form

(11) Online CST and VAT form.
Lacking of portal –

(1) This portal is not complete online system. It is lacking of CESS, Entry tax and PT as online process.

(2) Users don’t faith on online payment. It is shown by table.

(3) Lots of steps in tax administration are offline or manual.

(4) Server problem in peak time of return submission.

(5) Document verification is still manual. There is no connectivity between document issuing authority and tax portal, so that direct and online verification can be performed.

(6) Lack of interest in e-system shows by following table.

<table>
<thead>
<tr>
<th>Year</th>
<th>VAT</th>
<th>CST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Return</td>
<td>e-Return</td>
</tr>
<tr>
<td>2009-10</td>
<td>739712</td>
<td>71609</td>
</tr>
<tr>
<td>2010-11</td>
<td>1477616</td>
<td>89523</td>
</tr>
<tr>
<td>2011-12</td>
<td>195062</td>
<td>226262</td>
</tr>
<tr>
<td>2012-13</td>
<td>2135613</td>
<td>249007</td>
</tr>
</tbody>
</table>

Source - www.gujaratcommercial.gujarat.gov.in
From above table it is clear that only 10% returns are submitted online rest of the returns are submitted offline. It shows less interest towards online system in taxation.

4.43 VAITS (Value added tax information system)-

VAITS is separate online module for VAT administration. It is an automated system for VAT administration and management. It was started in 2006. This system was dedicated to tax administration process and on the basis of collected data and analysis of information for better decision support can be performed.

VAITS system is divided into following basic divisions mentioned in diagram.

**Business service** includes registration, return submission and assessments etc.

**Shared service** includes tax calculation, alert engine, security etc.

**MIS and housekeeping services** are linked with all business and shared services for generating reports for analysis and decision making. It also includes automated notice service for notice issuing and rules and regulations.

**Features of VATIS-**

1. Automatization of entire VAT related business.
2. Prompt capturing of data with digitization process.
3. From digitized data an in-depth analysis of information for decision support as well as strategizing the tax administration process.
4. Online filling of return by dealer.
5. Online request for acquiring statutory forms and receive the forms at their door steps.
6. Timely tax administration decision can be taken by officials due to digitization process.
7. Online creation and submission of various statutory notices and orders.
4.44 Gujarat pollution control board (GPCB)-

URL - www.gpcb.gov.in and www.gpcbxgn.gujarat.gov.in

Nature – Industry oriented and government oriented

In the year 2008 GPCB and NIC Gandhinagar had taken initiatives for E-governance in pollution control board offices of Gujarat state. Both board and NIC under NeGp developed XGN (eXtended Green Node) an E-governance system for managing all activities of pollution control board. This system has implemented in all offices of board in the state.

Till 2011-12 more than 18000 industries, 27000 hospitals, biomedical handlers, common effluent treatment plants are covered by XGN system.

After implementation of XGN acceptance of applications has achieved within time. Monitoring and sampling of various industries as per the designated frequency specified by board was possible. Since files moving process became online hence interference and influences from government employees like inspectors. Officers, technicians and non technical members have been reduced.

Following table shows changes made by XGN system before and after implementation –
Table No- 5

<table>
<thead>
<tr>
<th>Entity</th>
<th>Before XGN</th>
<th>After XGN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online application per year</td>
<td>2700</td>
<td>10212</td>
</tr>
<tr>
<td>Grant or reject of applications</td>
<td>1500</td>
<td>9823</td>
</tr>
<tr>
<td>No of inspections per year</td>
<td>11000</td>
<td>24000</td>
</tr>
<tr>
<td>No of samples per year</td>
<td>12500</td>
<td>28000</td>
</tr>
<tr>
<td>Industry profile update per month</td>
<td>No system</td>
<td>5000</td>
</tr>
<tr>
<td>Sample result printing per month</td>
<td>600</td>
<td>2300</td>
</tr>
<tr>
<td>Lab result dispatch to industry per month</td>
<td>4000</td>
<td>100 % (All that comes)</td>
</tr>
<tr>
<td>Lab charge defaulter (approx)</td>
<td>45 %</td>
<td>3 %</td>
</tr>
<tr>
<td></td>
<td>Rs 2.3 Crores</td>
<td>Rs 5 Crores</td>
</tr>
<tr>
<td>Pdf document upload per month</td>
<td>No system</td>
<td>2000 (172 GB)</td>
</tr>
<tr>
<td>e-Return</td>
<td>No system</td>
<td>12000</td>
</tr>
</tbody>
</table>

Source: www.gpcb.gov.in and Director GPCB GIDC region

Above figures are approx average figures for three years 2008 to 2011. Data shows tremendous growth and success of XGN system adopted by GPCB. In every entity 2 to 5 % growth and in some case 100% target has achieved.
Some main features that are observed during access of system are-

1. Online application submission by industries and other users are filled by internet in the form of pdf files.

2. Physical movement of files completely stops.

3. Assessment, NOC, consent order are completely stopped.

4. 85% files of online applications for NOC/Consents are generated for clearance.

5. Concept of e-box is used for storing all transactions except e-noting done by officials for future use and reference.

6. Any file which has exceeded the stipulated days in a workflow is auto reflected to next level for e-movement processing and concerning official has to reply for delay.

7. Online allotment of monitoring visit after entering into industrial state to officials. Team gets any industry for visit.

8. Online tracking of all activities.

**Problems in the path of success of system –**

1. Parallel offline system makes less interest in online systems.

2. Absence of actual online system .pdf forms are available for filling.

3. Problem makes less trust on e-payment system.
(4) Complex website structure makes difficult to understand hence less used by industries.

(5) Two websites are available as mentioned above makes confusion.

(6) GPC board regional offices are less with poor infrastructure facility to implement ICT, also they are dependent on NIC and central office for hardware and software and maintenance that take time.

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