Department of Information & **Communication Technology** Govt. of Mizoram



eDistrict State Roll Out

http://edistrict.mizoram.gov.in

Documentation financed by: Department of Administrative Reforms & Public Grievances, Ministry of Personnel, Public Grievances & Pensions





The e-District project is one of the State Mission Mode Project under National e-Governance Plan and 100% funded by the Department of Electronics & Information Technology, Government of India. In line with Digital India programme, the Government of Mizoram has committed to use ICT for delivery of Government's services to the common people through public service delivery outlets near their locality with minimum procedural formalities thereby pursuing economics development in the State of Mizoram.

The e-district project is to radically improve the way districts work and provide services to citizens and automate the complete workflow and internal processes of district administration with the possibility of

Preface

seamless integration of various departments to e-enable the delivery of services which will result in:

» Reduction of time taken to avail the services by the citizens. One-stop service delivery point in an efficient, reliable and integrated manner through authorised service centre such as Common Service Centres (CSCs), Rural Information Kiosks (RIKs) and e-District Facilitation Centres.

» Increase transparency in the delivery system where the applicant goes to the authorized service centre and need not deal with the officials who actually process it. She/he can keep track the application online.

» Improve processing time of applications in district administration and subordinate offices for providing services to the citizens. Ensure fast processing of public cases/ appeals/grievances dissemination of information within the defined service levels.

» Easy access to government services to common man with minimum procedural formalities through authorised service centre like CSC, RIK and e-District facilitation centre.



The e-District project has been rolled out in eight districts i.e Aizawl, Lunglei, Lawngtlai, Saiha, Kolasib, Champhai, Serchhip and Mamit on 2nd July, 2015. It has relieved the citizens from the hardships of standing in long queues as well as failed attempts in visiting the government offices to get their job done. It also increased transparency and improved the workflow of district administration relating to the citizen service provided by the government. The turn-around time for most of the common services has been reduced to days as compared to earlier manual processing time of weeks. Now on an average, services are generally delivered within one day depending upon the nature of service without any inconveniences. More importantly, citizens are given firm service delivery dates with provisions for knowing the status of their application over Internet. Such service delivery commitment and citizen interface has created a favourable impact at grass root level with growth in demand of such services.

The Government of Mizoram envisaged e-District Roll-out in the State in which majority of the G2C and G2G services are delivered by the District Administration leveraging Information and Communication

Overview



Technology. In this regard, the Government of Mizoram issued "Mizoram Citizen Services (Electronics Governance) Rules 2010" vide Gazette Notification No. B.16012/4/2009-PLG(ICT) dated 7th October 2010 to carry out e-Governance within the State under e-District project with respect to the notified Citizen services to provide for functions, regulation and liabilities of Authorized Citizen Services Agents. Therefore, the Government of Mizoram notified eight Categories of services with 34 sub-services under the rollout of e-District Mission Mode Project (MMP). More than 2.56 lakhs Certificates/Services have already been issued within 2015-16.

The following are service categories and sub-services provided under e-District project:

| S1. | Service Categories | Sub-Services |
|-----|---------------------------|--|
| 1 | Deputy Commissioners | Residential Certificate Permanent Residential Certificate Caste/Tribal Certificate Income Certificate Inner Line Permit (Regular) Inner Line Permit (Re-issue) |
| 2 | Labour & Employment | Application for New Enrolment Application for Change of Name / Address / Age Application for Transfer of Enrollment to other District Surrender of Employment Exchange card Renewal of Employment Exchange Card |
| 3 | Social Welfare | Application for Old Age Pension Card Application for Widow Pension Card Application for Disability Pension Card |
| 4 | Food & Civil Supplies | Application Form For New Ration Card Additional/deletion/Change of particulars in Ration Card Renewal of Ration Card Surrender of Ration Card |
| 5 | LAD | 1. Application for Housing Loan |
| 6 | PHED | Payment of Water bill Applying for new water connection Complaints regarding water connection |
| 7 | Commercial Taxation | E-Registration - for P-TAN (Professional Tax Assesse Number) & P-TDN(Professional Tax Deductor Number) e-Filing of Return of Professional Tax Payment of Professional Tax |
| 8 | Land Revenue & Settlement | Application for House Site Pass Application for LSC Application for transfer of LSC ownership Verification of Complaint on land holding/LSC Application for LSC re-demarcation Application for re-issuance of LSC. Application for partition of LSC Land Tax Payment Zoramchhiah |



Challenges Before

Before deployment of e-District Project, the common citizen has to approach different government departments for getting various services such as - certificates for income, domicile, caste, birth, death etc. Many citizens faced various problems in availing the benefits under Public Distribution System (PDS) viz. getting ration card, etc.

For instance, there were obstacles in availing the various Social Welfare schemes - Disbursement of old-age pensions, family pensions, widow pensions, etc. There were aslo many complaints relating to unfair prices, absentee teachers, non-availability of doctor, etc. Getting information under RTI involved a lengthy procedure. Common man has to approach different departments There were lacks of Information about government schemes as well. Information dissemination about government schemes, entitlements, etc.

Further, the citizens also faced several issues in availing government services as stated below:

1. Number of trips made for availing a single service is very high.

2. The traveling cost for availing



Government service is also consequently high.

3. The total waiting time for availing Government services are high in manual process.

4. Increase in wage loss due to time consumed in availing Government services.

5. Limited Quality of Service in terms of Interaction with staff, complaint handling, privacy, accuracy for the service.

6. Location of some service delivery centers and offices are out of reach for many citizens.

7. Increasing in response time for availing services and queries to avail Government Services.

8. Low quality of Governance in terms of transparency, participation, and accountability.

9. Increase in level of opportunity for corruption in the manual working system.

10. Limited awareness about the citizen charter for availing Government services

11. Huge financial loss due to delay in availing Government services at the delivery centers.



The objectives of the e-District State Roll out Project is to ensure the following:

1. Undertake backend computerization of District and Block level offices to ensure electronic delivery of high volume citizen centric services at the district level.

2. Efficient delivery of services with improved Service Levels by undertaking extensive Business Process Re-engineering of identified services.

3. Extensive Capacity Building and training of field level functionaries to ensure smooth migration of electronic delivery of e-district services and phasing out manual delivery of services. Objectives

Common Service Centers (CSCs) and Rural Information Kiosks (RIKs) by leveraging the common infrastructure of SWAN, SDC, and SSDG.

5. Development of applications to be hosted at the State Data Centers for delivery of services.

6. Delivery of all public services at District/ Sub Divisional/ Block level in electronic form through State Portals and e-District Portal by using the State Service Delivery Gateways.

7. Providing easy, anywhere and all time access to government services (both Information & Transactional) to ensure reliability, efficiency, transparency and accountability.

8. Reducing number of visits of citizens to government offices/departments for availing the services and there by eliminating red-tapism and harassment.

9. Reducing administrative burden and service fulfillment time & costs for the Government, Citizens & Businesses

10. Reducing direct interaction of citizens with the Government and encourage 'e'- interaction and efficient communication through portal.

4. Delivery of services through



HTML JSON XML Presentation Web Services Framework Soring MVC Batch jobs Services Services (API) Spring Batch Business Logic Business Spring Framework Quartz Data Access Persistence Hibernate Object Relational Mapper iboss Application server MySQL Producti

System Architecture

The System Architecture of e-District software application is developed and deployed using open source technology on a web platform with MVC architecture. This technology is highly scalable and provides optimal performance. The solution architecture is flexible; interoperable, scalable and secured. The security features of this technology are well explored and embedded in the solution. The following are the technology stack of e-District solution:

- » Application Server, Web Server, EMS and File Server
- » Data Base Server
- » SAN Storage

Solution Implemented

- » Unified Thread Management (UTM)
- » Operating System: Red Hat Linux
- » Application Development platform: J2EE
- » Framework : SPRING MVC
- » Database: MY SQL Enterprise Edition
- » Web/Application Server: JBOSS
- » Reporting Tool: I-Report 1.3 (Jasper)

The value added services like SMS advisory and e-Mail advisory are incorporated in e-District application. The System Architecture of e-District system is centralised Architecture. A high-level database and application server along with web servers and storage are placed at State Data Centre (SDC). The SDC hosted the central repository of the database and applications of e-District with all necessary security of the system.



Network Architecture

The Network Architecture is based on Mizoram State Wide Area Network (MSWAN) which is used for vertical connection between state headquarter and District headquarter/Sub-divisional & Block headquarters using BSNL leased circuit at the data speed rate of 4 Mbps. The optical fibre and wireless network are used for last mile connectivity from each PoPs to various department offices in the respective District, Sub-division and Block headquarters. The SWAN headquarter is connected with State Data Centre (SDC) in which e-District database and application software runs for 24x7. The CSCs, RIKs and Citizen can connect e-District Application software through State portal and State Service Delivery Gateway (SSDG). The e-authentication, payment gateway and SMS gateway are incorporated

in e-District application software through SSDG. The citizen can avail the services through State Portal.

e-District software application is a centralised browser-based application through which various services are provided to the citizen through the Common Service Centre (CSC) and Rural Information Kiosk (RIK). The backend data servers at State Data Centre (SDC) provides clustering capabilities for failover and high availability of services. The data stored in the database server can be retrieved as an XML document and the application can communicate with any other applications using open standards.



Functional Architecture

The Functional Architecture is a logical representation of business functionalities. It involves the demands of an organisation in delivering e-Services and the manner in which the various categories/classes of users interact with the system. In the context of the e-District Project, the key elements that enable designing of an appropriate Functional Architecture are given below:

» **Citizen Interfaces:** The e-District service can be availed by the citizen through authorised service centres like CSC, RIK and e-District facilitation centre. The web-portal portal interface i.e State portal and e-District portal is used for availing the services.

» **Departmental Interface:** The departments at the backend access the system for various purposes like data entry, data updation, approvals through workflow etc. These interfaces are provided through Internet or Intranet.

The e-District Business layer provides a workflow, for facilitating approvals at

various levels while processing a citizen request and the authentication of the citizens through aadhaar. The PKI Support facilitates the usage of digital signatures and Payment Gateways to make the payments directly by using credit/debit cards. The mobile services enables communicating the updates to the citizen. A high-level illustrative representation of the proposed e-district functional Architecture is given below:

The Operation Accounts/Types of Users are:

» **Site Administrators:** Monitors and administers the data dictionaries, access control and administering the site content system administration activities such as performance tuning, periodical backups and recovery.

» **CSC, RIK and e-District facilitation centre Operators:** Front end operators/ kiosk operators who receive applications for various services along with the required documents and deliver the certificates and/ or order copies to citizens. The kiosk operator will fill in the online form, attach the scanned supporting documents and handover the physical documents and applications within the stipulated time frame, as decided by the Government to the concerned govt. offices/ departments.

» **Processing officials:** Govt. officials who route the applications received from CSC and RIK to the issuing/approving authorities. Forwarder verifies the application and all the attached documents/scanned copies of supporting documents and, forwards the application to the concerned Approving Authorities if the application is OK.Otherwise, forwarder can reject the request or refer back to the applicant for necessary updates in the application form along with the remarks.

» **Approving Authorities:** Government Officials who checks or inspects the applications routed through Processing officials and other officials. The Approving Authorities either issues the digitally signed certificate/order sheet or rejects the application along with the reasons forrejection.Before approval/rejection, Approving authorities can refer the applications to other officials/inspection authorities.

» **Verifying Officials:** Govt. officials verify the authenticity of the application and submits/uploads the verification report.

» **SPIO:** State Public Information officer handles/addresses the requests under RTI.

» **Monitoring Authorities:** Govt. officials who can monitor the progress of the services deployed.



The e-District project covers eight categories of services with 34 sub-services under the state rollout of e-District Mission Mode Project (MMP). More than 2.56 lakhs Certificates/Services have already been issued till 2015-2016.

The e-District project spread geographically across 8 Districts including 23 Sub-division and 26 Block Offices covering the total population of 10.11 lakhs.

In order to provide e-District services to the common citizens, the Department of

Coverage

ICT established citizen facilitation centre in every district headquarters, Common Service Centres (CSCs) in 136 places and Rural Information Kiosks in 300 places across the state. Through these centres, the citizens can avail various Government services with minimum procedural formalities and cost.

The e-District project also covers other Departments like Labour & Employment, Social Welfare, Food & Civil Supplies, Local Area Development, Public Health Engineering, Commercial Taxation, and Land Revenue & Settlement.





Pre vs. Post Deployment

The implementation of e-District state roll out project has many significant benefits to the Citizens as well as the Government Departments. The following table shows predeployment and post-deployment of e-District state roll out project:

| Criteria | Pre-Deployment | Post-Deployment | | | |
|--|--------------------------------|-----------------------------------|--|--|--|
| Cost of Availing Service Measured Directly | | | | | |
| Number of trips made by the Citizen for ob- taining the service | Minimum 6-7 | Reduced to Maximum 2 | | | |
| Average travelling cost by the Citizen for ob- taining the service | Rs 300-500 | Reduced to Rs. 50 | | | |
| Average waiting time in each trip | 2-3 Hr | 30 Minutes | | | |
| Estimate of wage loss due to time spent in availing the service | Minimum 6-7 of Daily wages | Maximum 1 day | | | |
| Total time elapsed in availing service | 15-20 Days | 1-2 Days | | | |
| Quality of Service: Interaction with staff, complaint handling, privacy, accuracy | | | | | |
| Satisfaction with the location of the service delivery centre/office | Has to come to District office | Available from nearest CSC & RIK. | | | |
| Timeliness of response to queries by clients | Low | Very Prompt | | | |
| Quality of Governance: Transparency, Participation, Accountability and Corruption | | | | | |
| Level of corruption in the current working system | Very High | Very Low | | | |
| Awareness about the citizen charter | Low | High | | | |
| Adherence of the time frame for service deliv- ery (elapsed time) to that specified in citizen's charter | Low | High | | | |
| Financial loss due to delay in availing the service | High | Low | | | |



Key Learnings

1. The geographical spread of the number of CSCs and RIKs are very limited covering only 436 out of 816 villages. The remaining 380 CSCs and RIKs are required to establish to reach out all villages. But some towns and cities required atleast 10-20 CSCs/ RIKs for delivery of services to the citizens. Therefore, there is a demand of atleast 600 more CSCs/RIKs.

2. Many times the Government's employees ignore to provide services through e-District Portal due to absent of ownership and unawareness of citizen expectation for time and cost saving to avail the services.

3. During the implementation of e-District project, the designated department frequently submits change request for service priority, which not only delay implementation process but also affect the cost of the project. During the initial phase of BPR, the designated department failed to give thought on prioritization of their services. However, in the implementing phase, they requested to change the services, which delay the implementation process and



affect the entire cost and over run the project.

4. Verification of Citizen details is based on electronics data which is mandate by line departments. This has resulted in improved service levels.

5. The certificates are issued with digital signatures and printed by the concerned CSC, RIK, e-District facilitation Centre improving authenticity of the services.

6. Once the application is submitted, the system generates tracking code and sends it to the citizen through SMS gateway. The status of application can be tracked with tracking code by the citizen. This ensures transparency of service and application.

7. The authenticity of certificates/ services can be verified through mobile handset by providing the unique identification numbers printed on the certificate. This improves the satisfaction level of the Citizens.

8. The system provides role based user-id and password for access control and can generate MIS reports at every level of execution to monitor the workflow. The complete automated process has made it almost paperless and reduced the infrastructural requirements for physical movement of documents.



The Government of Mizoram endeavors to adopt Open Source Software (OSS) in all e-Governance system implemented by various Departments to reduce the Total Cost of Ownership (TCO) of the projects. The e-District project is developed in Free and Open Source Software (FOSS) that is in a cost effective and affordable manner. At the same time it aims to make all services available to the citizens in their localities through CSCs and RIKs ensuring efficiency, transparency and reliability of such services at affordable costs.

A. Time and Cost Efficiency Improvements in the Government and

Cost Effectiveness

Delivery of Services – One of the main objective behind this initiative was time and cost efficiency improvement in the Government functionaries by –

» Better district efficiency due to increased automation and computerization of processes.

» Comprehensive MIS providing both tabular and graphic statistics for Escalation, reporting, pending status etc for better efficient management.

» Efficient Records Management – record management has undergone a complete transformation. Now it is automatic and the electronic archiving is set to be enriched over a period of time.

» Helping in integration of database of government departments and organization. This integration has also forced the user departments to carry out process reengineering and standardization in delivery of services. No subjectivity in decision making due to automated process and time markings. Paper has largely been replaced by digital records and there are minimal chances of loss or substitution of documents. Creation of a 'new look' office environment that is more conducive to improved productivity awaits the citizens & employees.

» The application has resulted in time and cost savings both for the citizens and the government. The citizens can get the services at their nearest e-District Centre, Common Service Centre and Rural Information Kiosk saving money time spent in transportation, while the Government can now broadcast all information on the website saving time & expenses incurred on postal services.

» The web based system has also provided the government officials to work on anywhere, anytime basis thereby increasing the productivity.

B. Affordable Cost and Time Saving to Avail the Services by the Citizen -

» Citizens can avail services from the nearest CSC and RIK even for the services that are available from the district headquarters, saving time and cost.

» Display of up-to-date information on the current status of the application which reduces the requirement for visits to government offices by the citizens to know the status of his/her application.

» Transparency in dealing - the applicant goes to the e-District centre and does not have to deal with the officials who actually process it.

» System generated SMS at the time of submission of application & the delivery of the certificate adds to transparency.

» Online verification and authentication of issued certificates through e-District Portal and SMS Gateway.

» Standardization of certificates owing to pre-printed stationery with clear and photo affixed certificates and incorporated with digital signature.

» Shorter turn around time for various processes. For example, a caste certificate, that took 5 days on an average to be issued is now delivered in one day.

» Use of new delivery channels like Common Service Center and Rural Information Kiosk, thus reducing waiting time and travel time of the Citizen.



Future Roadmap

The e-District project is funded by Government of India under NeGP with a support for 3 years from the Go-live of the project. Since, the support of Government of India for Mizoram e-District will be over by 2018, the Government of Mizoram have a future roadmap for sustainability of the project in three directions such as program sustainability, human sustainability and financial sustainability.

1. Program Sustainability: The Government of Mizoram has constituted three pillars of institutional framework such as State e-Governance Council under

the chairmanship of Chief Minister, State e-Governance Apex Committee under the chairmanship of Chief Secretary and State Project Steering Committee under the chairmanship of Secretary. ICT Department holds responsibility for overall planning, co-ordination, monitoring, evaluation and guidance for implementation and sustainability of e-District project.

The Government of Mizoram has also established District e-Governance Society (DeGS) under the chairmanship of Deputy Commissioner in every district to monitor the implementation and support



for operation and maintenance at the district level. In the State headquarter, Mizoram State e-Governance Society (MseGS) provides full support for operation and maintenance of e-District project.

2. Human Resource Sustainability: The Mizoram State e-Governance Society (MseGS) along with District e-Governance Socity (DeGS) conducted several training programmes on office automation and e-District application software for office staff of district administration, designated departments, VLE (Village Level Entrepreneurs) of CSCs and RIKs to enable to provide various services through e-District portal and State portal.

In order to provide continous support for capacity building and empowerment of district administration and designated departments, the Government of Mizoram employed e-District Manager for postings in eight districts under the adminstrative control of Deputy Commissioner. The e-District Manager has the operational knowledge of IT and an in depth knowledge of the key process areas of district administration. They ensure (i) Speedy implementation of both the configuration and customization of the application; (ii) Speedy settlement of key issues being faced by the user of the system; (iii) Maintenance of key knowledge within the department thereby facilitating speedy knowledge transfer; and (iv) Successful adoption of training the trainer's concept to provide additional / new trainings to the existing / new user in the office.

3. Financial Sustainability: To ensure financial sustainability of e-District project after the support of central government were identified as follows:

» The Government of Mizoram committed to provide financial support from the state plan budget for use of various e-Governance projects in which e-District project is one of them. The sustainability of the project ultimately depends on the extent to which the results add value to the Government in terms of socio cost benefit.

» Levied Service charges from citizens for administrative and operational cost of e-District Centre, CSCs and RIKs as given in the table.

The e-District Portal will be updated and maintained by MSeGS without any additional cost but the replacement of hardware system will be charged at actual.

| | Service Charge | | |
|----------------------|----------------|---------------------------|--|
| Types of Transaction | Govt. Fee | CSC/RIK/e-District Centre | |
| Certificates | Rs. 10 | Rs. 20 | |
| Inner Line Permit | Rs. 200 | Rs. 70 | |
| Revenue Services | Rs. 20 | Rs. 30 | |
| Other Services | Rs. 10 | Rs. 20 | |



Award

In 2016, on account of its successful implementation, e-District State Roll Out project received Skock Platinum Award.



