Project management roadmap for successful implementation of e-District projects

Study on
e-District Pilot Project, Bankura, West Bengal

December 2012
We are grateful for the help extended to us by Department of IT, Government of West Bengal, Bankura District Administration, West Bengal Electronic Industry Development Corporation Limited (Webel), PricewaterhouseCoopers Pvt. Ltd. and Tata Consultancy Services in developing the study on e-District Pilot Project, Bankura, West Bengal.

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Secretary, IAS, Department of IT, Govt. of West Bengal

Mr. Debashis Bandyopadhyay
OSD & E.O. Dy. Secretary, WBCS, Department of IT, Govt. of West Bengal

Md Ghulam Ali Ansari
District Magistrate, IAS, Bankura District, Govt. of West Bengal

Ms. Moumita Basu
Additional District Magistrate, IAS, Bankura District, Govt. of West Bengal

Mr. Anjan Ghosh
WBCS (Exe), Dy. Magistrate & Dy. Collector, Officer-in-Charge IT, Bankura, Govt. of West Bengal

Mr. Prabir K. Das
Managing Director, Webel

Mr. Sunit Bhattacharjee
Manager (e-governance), Webel

Mr. Ambarish Dasgupta
Partner & Director, PricewaterhouseCoopers Pvt. Ltd.

Mr. Amulya Patnaik
Associate Director, PricewaterhouseCoopers Pvt. Ltd.

Mr. Chinmay Singhary
Principal Consultant & Regional Head of Sales – Government ISU, Tata Consultancy Services

Study Team

Ms. Mousumi Ghose,
Sr. Director,
FICCI West Bengal State Council

Ms. Amrita Niyogi
Research Associate,
FICCI West Bengal State Council

Ms. Madhumanti Kayal
Research Assistant,
FICCI West Bengal State Council

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Knowledge is considered as the engine of social and economic development in today’s world. In order to disseminate knowledge equally across the country and develop India as a knowledge economy, Information and Communication Technology (ICT) plays a major role. ICT sector is one of the fastest growing sectors in India. However, there is a need to spread the benefits of the ICT revolution to touch the everyday life of the common man in urban and rural areas and build a dynamic information infrastructure. Leveraging ICT, there are huge potentials for improvement of the internal efficiency of the public sector and the delivery of public services to citizens in a sustainable manner.

The Government of India has been taking major initiatives for ushering in ICT to significantly re-engineer the work system for achieving good governance goals. Department of IT, Government of India has introduced the National e-Governance Plan (NeGP) in 2006 for improving the quality of basic governance. The ultimate objective of NeGP is to bring public services available at the doorstep of the citizens.

The e-District project is a part of the 27 Mission Mode Projects under National e-Governance Plan (NeGP) of the Department of IT, Government of India. It was planned to be implemented in two phases; in Phase I Pilots covering 1-2 districts of a state and in Phase II the project would be rolled out across the state subsequent to successful implementation of the pilot. Uttar Pradesh, Assam, Tamil Nadu, Kerala, Madhya Pradesh, West Bengal, Mizoram, Maharashtra, Jharkhand, Bihar, Orissa, Punjab, Rajasthan, Uttarakhand, Haryana and Puducherry have introduced the e-District pilot project. The e-District MMP has been implemented in 41 districts in India under pilot implementation of the project. The nationwide rollout would incorporate 640 more districts in the project in the next phase.

The Government of West Bengal has initiated the e-District pilot project in two districts– Bankura and Jalpaiguri in the state. The primary objective of the e-District project is to provide support to the basic administrative unit i.e., “District Administration” and improve the G2C experience. This would optimally leverage and utilize the three infrastructure pillars, the State Wide Area Network (SWAN) for connectivity, State Data Centre (SDC) for secure and fail safe data storage and Common Service Centers (CSCs) as the primary front-ends for service delivery.

This pilot project has gone live on 27th September, 2010. The citizens now can avail G2C services like issuance of Certificates (Domicile, Income & Caste), RTI services & Grievance Redressal, Licenses (Arms and Explosives), Industry Service, Pension and Social Welfare (ICDS) under the e-District project.

Since projects like e-District involve huge cost for the government, the contemporary and multi-dimensional use of project management techniques is essential for the successful delivery of goals and objectives. Thus, the pilot e-District project was launched not just with the aim of ensuring effective, transparent and accountable G2C services but also to acquire project management experience.

PricewaterhouseCoopers (PwC) has been selected as the project management consultant for the e-District pilot project in the state. Tata Consultancy Services (TCS), the System Integrator, has designed and developed the application software. West Bengal Electronic Industry Development Corporation Limited (WBEIDC) or Webel is the State Designated Agency (SDA) for the implementation of the application software. District e-Governance Society (DeGS) has been responsible for successful implementation of the project at the district ensuring close linkages and coordination among the various stakeholders at field level.

To develop the study comprehensive questionnaires for all stakeholders and citizens have been designed by the FICCI team. An extensive data collection from the IT Department and all stakeholders has been done through consultative meetings and field visits to Bankura district.

The study has tried to identify

- Benefits that can be accrued by using modern project management practices in e-District
- Issues and challenges faced while implementing the project at every stage of the project life cycle – inception, development, implementation, monitoring-evaluation and close out phases
- Actions taken to mitigate these challenges during the project life cycle focusing on various project management knowledge areas such as scope, time, cost, quality, human resources, communication, risk, etc

An overall assessment of the e-District project from the project management perspective has been included in the study based on the feedback collated during interactions with the stakeholders.
Knowledge is considered as the engine of social and economic development in today’s world. In order to disseminate knowledge equally across the country and develop India as a knowledge economy, Information and Communication Technology (ICT) plays a major role. ICT sector is one of the fastest growing sectors in India. However, there is a need to spread the benefits of the ICT revolution to touch the everyday life of the common man in urban and rural areas and build a dynamic information infrastructure. Leveraging ICT, there are huge potentials for improvement of the internal efficiency of the public sector and the delivery of public services to citizens in a sustainable manner.

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Since projects like e-District involve huge cost for the government, the contemporary and multi-dimensional use of project management techniques is essential for the successful delivery of goals and objectives. Thus, the pilot e-District project was launched not just with the aim of ensuring effective, transparent and accountable G2C services but also to acquire project management experience.

Against this backdrop, the FICCI-PMI study describes how adoption of project management techniques has lead to successful implementation of the pilot e-District project in Bankura. Bankura is the fourth largest district of West Bengal with a total population of over 35 lakhs and a high percentage of tribal population. The district has 3 sub-divisions viz. Bankura, Khatra and Bishnupur. The e-District project is implemented at all the 22 block offices of the district besides the 3 sub-divisional offices.

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An overall assessment of the e-District project from the project management perspective has been included in the study based on the feedback collated during interactions with the stakeholders.
The citizens are the ultimate beneficiaries of the e-District project and their feedback forms the basis of evaluation of the project. Based on the citizens’ interviews conducted at the sub-divisional offices, the block offices and the Common Service Centres (CSC) a snapshot of the experience of the citizens who have availed the new e-enabled services has been included in the case study. Majority of the citizens agreed that the computerized system under e-District project has been substantially beneficial as the application process to computerized system under e-District project has been simplified. There has been a perceptible reduction in the time taken to issue a certificate from around 2-3 weeks to around 2-5 days on an average. The new system has raised the level of transparency and quality of governance. Service delivery has improved with almost 40% increase in the daily issuance of certificates. Also citizens now can track on line the progress of their applications.

The key findings from the consultative meetings with stakeholders and field visits to Bankura are highlighted below.

**Objective of the Project**

The ICT revolution has transformed the mode of interaction between the government and its service seekers. Today, ICT is the leading enabler that ensures huge potentials for improvement of the efficiency of the public sector and the delivery of public services to citizens and other government customers in a sustainable manner. ICT is one of the fastest growing sectors in India. However, the benefits of the ICT revolution have not been evenly distributed, particularly to those in rural areas. Thus, in order to provide efficient governance to all the citizens, the Government of India has been taking major initiatives for introducing ICT into its works by significantly re-engineering the earlier processes leveraging the power of modern technology.

**National e-Governance Plan (NeGP)**

The National e-Governance Plan (NeGP), the flagship e-governance programme of the Central Government for improving the quality of basic governance, was approved by the Government of India in May 2006. NeGP was formulated with the view of integrating e-Governance initiatives across the country into a shared vision, a common cause of improving public service delivery, bringing greater transparency in government processes, ensuring more effective accountability and bringing together citizens to make the services accessible to the common man at an affordable cost.

To realize the vision of the NeGP, 27 Mission Mode Projects (MMPs) at the Central, State and Local Government level, along with 8 support components were identified and approved.

**e-District Project**

The e-District initiative of the Department of Information Technology (DIT), Ministry of Communication & Information Technology (MCIT), Government of India is one of the Mission Mode Projects at the State level. It is a centrally sponsored project, funded by Government of India.
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The key findings from the consultative meetings with stakeholders and field visits to Bankura are highlighted below.

**Human Resource Management:** More emphasis on rigorous training, including dedicated basic computer training to stakeholders with no prior computer knowledge and monitoring the project from the district end to be better handled.

**Infrastructure and Connectivity:** Connectivity issues including electricity, BSNL connection and SWAN needs to be better handled.

**Communication Plan with Line Departments:** A structured communication plan to ensure all the line departments are on the same page and support the project whole-heartedly is needed.

**Citizens’ Awareness:** Focus on information dissemination at the grass root civic society organizations to ensure greater acceptability of the digitally signed documents.

**Integrated Framework:** For complete end-to-end solution, seamless inter-operability and exchange of existing databases across the departments, an integrated framework is required.

**Authenticity of the Digitally Signed Documents:** Need to generate more awareness on legal acceptability of digitally signed documents.

**Common Service Centre (CSC):** Expertise of CSC owners to be improved to help the CSCs run profitably. A structured framework and risk mitigation measures for the better front-end service delivery from the CSCs need to be planned.

**Digital Signature and Crypto-tokens:** Adequate supply of digital signature and crypto-tokens to ensure a smooth and timely execution of the project.

The key findings may serve as a useful tool for the state-wide roll-out of the project which is planned in March, 2013.
Service Centers (CSCs) as the primary front-ends for service delivery to the citizens at their doorstep. The pilot e-District MMP has been implemented in 41 districts in India. The nationwide rollout would incorporate 640 more districts in the next phase.

**e-District Project in West Bengal**

The Department of Information Technology, Government of West Bengal has initiated the pilot e-District project under National e-Governance Plan (NeGP) of the Department of Information Technology (DIT), Ministry of Communication & Information Technology (MCIT), Government of India to create a citizen-centric environment for governance. The primary aim of the project is to provide improved services to the citizens as well as introduce and strengthen new and existing delivery channels for the District Administration at the District, Sub Divisions, Block levels and provide better back-end support. In the first phase of the project, the Government of West Bengal has chosen the two districts namely Bankura and Jalpaiguri for the pilot implementation of the e-District project. These districts have been chosen on the basis of geographical representations and socio-economic profile. The pilot project got approval in June 2008 with a total funding of Rs. 579.44 lakhs. According to the Quarterly Progress Report for e-Governance Projects (July, 2012), funds received from the Government of India till July 2012 for the pilot project is Rs. 353.37 lakhs with an interest of Rs. 23.56 lakhs. For the State wide roll-out, the cost of the project at the time of approval has been estimated at Rs. 180 lakhs. Since the software application for the e-District project has been developed by the System Integrator in the pilot phase, the projected cost for the State-wide roll-out is much lower.

The major service categories identified and proposed in the e-District pilot project in West Bengal include G2C services like issue of Certificates, Pensions, Social Welfare (ICDS), Industry services, RTI services, Licenses (Arms and Explosives), Ration Card and Revenue Court. The table below provides the details of the services currently offered in the state. This case study would focus on the successful project management of the e-District pilot project in the Bankura district.

The Total List of Services Delivered under e-District is as follows:

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### Bankura – District Profile

Bankura, the fourth largest district of West Bengal, is located in the western part of the state. With a total population of over 35 lakhs and a high percentage of tribal population, Bankura is one of the backward districts in the state. The economy of Bankura is mainly agrarian. The literacy rate is recorded at 70.95%. The district has 3 sub-divisions viz. Bankura, Khatra and Bishnupur. The e-District project is implemented at all the 22 block offices of the district besides the three sub-divisional offices.

This case study would focus on the successful project management of the e-District pilot project in the Bankura district.

### Stakeholders of the Pilot Project

Department of Electronics and Information Technology (DeitY), Government of India is the major stakeholder of the project. The West Bengal Government set up a State Project Steering Committee headed by the Chief Secretary comprising of Secretaries of various departments and a representative of the Government of India. For the smooth and speedy implementation of the e-District Project, a State e District Mission Leader was appointed to coordinate with all concerned departments, identify the services and service levels and get approval of the State Project Steering Committee. The District e-Governance Societies (DeGS) under the Chairmanship of District Magistrate is the other major stakeholder of the project. DeGS is responsible for successful implementation of the project at the district level ensuring close linkages and coordination among the various stakeholders at field level. The concerned departments/organizations are the ultimate owners of the project which help in identifying the services and service levels to be automated. PricewaterhouseCoopers, the Project management consultant for the e-District pilot project in the state, prepared the Functional Requirement Specifications for the project. Tata Consultancy Services, the System Integrator, designed and developed the application software. The State Designated Agency (SDA), West Bengal Electronic Industry Development Corporation Limited (WEBELDC) or Webel is the implementing agency of the application software.
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CHAPTER 2

METHODOLOGY ADOPTED FOR CASE WRITING

The study has been developed by the following approach:

- The background and the primary objective of the e-District project have been presented with a brief overview on pre and post implementation scenario.
- Comprehensive questionnaire for all stakeholders and citizens have been designed.
- An extensive data collection from the IT Department and all stakeholders (DeGS, district administration, state designated authority, consultant, system integrator, etc) has been done through consultative meetings and field visits to Bankura district.
- Different phases of the project cycle (inception, development, implementation, monitoring and evaluation and close out) have been discussed focusing on various project management knowledge areas including project scope, time, cost and quality management, etc.
- The challenges and the actions taken to address these issues in the different project phases have been identified and analyzed.
- Based on the information collected from all the stakeholders, an overall assessment of the e-District project from the project management perspective has been prepared.
- Clients (citizens) who have used the services have been interviewed through field visits and consultative meetings and their feedback on the automated system have been collated.
- Status of applications of the e-District services has been computed.
- A summary report of the key findings of the pilot project has been prepared which could be used for the State-wide roll-out of the project.

CHAPTER 3

PROJECT CYCLE

The adoption of project management tools to support and manage any project efficiently with optimal utilization of resources is of significant magnitude. The major areas of work done during the project could well be treated as projects in itself. This case study will take into account the various factors that came into play during the course of the project life-cycle - inception, development, implementation, monitoring and evaluation and closeout phases. The chapter will discuss various project management knowledge areas such as scope, time, cost, quality, human resources, communication, risk, etc. It will focus on the major issues and challenges faced as well actions taken for better management of the project.

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INCEPTION

Highlights

- Scope of work formulated by DeitY
- Webel identified as State Designated Authority on the recommendation of State Government
- Formation of DeGS
- As-Is Assessment, Gap Analysis, To-Be Services envisioned, Business Process Re-engineering areas identified by PwC
- Workshops & Trainings for the State and District level officials to generate awareness about the e-District project

Scope of work is the first and foremost dimension that is considered at the beginning of any project. Defining the scope - the project deliverables, the limitations and the boundaries of the project, is important as it is directly linked to the three other major dimensions of time, quality and cost of the project. During the inception phase, the Department of Electronics and Information Technology (DeitY), Government of India, formulated the scope of the e-District project. Webel was identified as State Designated Authority on the recommendation of State Government and District e-Governance Society (DeGS) was formed for Bankura
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- Different phases of the project cycle (inception, development, implementation, monitoring and evaluation, and closeout) have been discussed focusing on various project management knowledge areas including project scope, time, cost and quality management, etc.
- The challenges and the actions taken to address these issues in the different project phases have been identified and analyzed.
- Based on the information collected from all the stakeholders, an overall assessment of the e-District project from the project management perspective has been prepared.
- The adoption of project management tools to support and manage any project efficiently with optimal utilization of resources is of significant magnitude. The major areas of work done during the project could well be treated as projects in itself. This case study will take into account the various factors that came into play during the course of the project life-cycle - inception, development, implementation, monitoring and evaluation, and closeout phases. The chapter will discuss various project management knowledge areas such as scope, time, cost, quality, human resources, communication, risk, etc. It will focus on the major issues and challenges faced as well as actions taken for better management of the project.

### METHODOLOGY ADOPTED FOR CASE WRITING

The case study aims to outline the project management which has led to successful implementation of pilot e-District project in Bankura and the impact of the e-District project on the citizens.

### CHAPTER 2

#### PROJECT CYCLE

The adoption of project management tools to support and manage any project efficiently with optimal utilization of resources is of significant magnitude. The major areas of work done during the project could well be treated as projects in itself. This case study will take into account the various factors that came into play during the course of the project life-cycle - inception, development, implementation, monitoring and evaluation, and closeout phases. The chapter will discuss various project management knowledge areas such as scope, time, cost, quality, human resources, communication, risk, etc. It will focus on the major issues and challenges faced as well as actions taken for better management of the project.

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<thead>
<tr>
<th>Phase</th>
<th>Key Knowledge Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inception Phase</td>
<td>Scope Management</td>
</tr>
<tr>
<td></td>
<td>Time Management</td>
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<td></td>
<td>Cost Management</td>
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<td>Quality Management</td>
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<td>Communication Management</td>
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<td></td>
<td>Risk Management</td>
</tr>
</tbody>
</table>

### INCEPTION

#### Highlights

- Scope of work formulated by DeitY
- Webel identified as State Designated Authority on the recommendation of State Government
- Formation of DeGS
- As-Is Assessment, Gap Analysis, To-Be Services envisioned, Business Process Re-engineering areas identified by PwC
- Workshops & Trainings for the State and District level officials to generate awareness about the e-District project

Scope of work is the first and foremost dimension that is considered at the beginning of any project. Defining the scope - the project deliverables, the limitations and the boundaries of the project - is important as it is directly linked to the three other major dimensions of time, quality, and cost of the project. During the inception phase, the Department of Electronics and Information Technology (DeitY), Government of India, formulated the scope of the e-District project. Webel was identified as State Designated Authority on the recommendation of State Government and District e-Governance Society (DeGS) was formed for Bankura...
under the Chairmanship of the District Magistrate. National Informatics Centre Services Inc. (NICSI) chose PwC as the project management consultant.

With the support of the West Bengal IT department, the Consultant undertook several activities in the inception phase of the project. A combination of various modes of information gathering techniques like personal interviews, focused group discussions, workshops, telephonic interviews, concept demonstrations, etc were used to collect information. The Consultant conducted an extensive study of the citizen centric services at the district, analyzed the risks and challenges anticipated for the project and prepared the As-Is assessment of the services. The root cause for process gaps and failures were identified and the Gap analysis was conducted using six-sigma tools of fish-bone to weed out iterative processes within the ambit of requirements in the e-District project. VA-NVA (Value Added and Non-Value Added) analysis was conducted and a flow chart assessing the value added and non-value (waste) accumulated during the process steps was prepared.

The key problems, the likely causes of the identified problems and the proposed changes for issuance of income, caste and domicile certificates as identified by the Fishbone Analysis are presented in the following table. The detailed Fishbone Analyses are presented in Annexure I.

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<tr>
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<td></td>
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Subsequently, best practice study and benchmarking of the project in the state was made. This study took into account various national and international best practices and provided an in-depth analysis of the existing manual service delivery mechanisms as well as the redesigned automated To-Be processes. Some of the best practice studies made by the Consultant included studies on Police, RTI, Grievance Redressal, Revenue courts, Public Distribution System and Pensions, etc. A snapshot of the best practice studies conducted by the Consultant has been provided in Annexure II. These extensive studies of the existing processes for service delivery were carried out to identify the areas of Business Process Re-engineering (BPR) and the To-Be services. Specific inputs were taken from respective process heads at the district level to understand the pre-implementation scenario vis-à-vis the process that would follow after the implementation of the e-District project. These later helped in preparing the Functional Requirement Specification (FRS) for the implementation of the e-District project.

### Challenges
- District administration and different line departments had apprehensions regarding the reengineering initiatives as the service delivery system seemed complex at the time with no/inaccurate project knowledge. As a result there was a delay in approval of Business Process Reengineering by line departments.

### Actions Taken
- Workshops were conducted at the State and District level to apprise stakeholders about the benefits of the project in order to improve their level of participation Proof of Concept was prepared by the Consultant to demonstrate the activities that have to be performed in the application to ease out the apprehensions.

The major area of strength in the inception phase emerged to be the high level design of the To-Be processes which would utilize the present electronic infrastructure most efficiently and effectively with best standards.

### DEVELOPMENT

#### Highlights
- Preparation of Functional Requirement Specification by the Consultant
- Webel selected TCS as the System Integrator (SI) by tendering process
- System Requirement Specification report prepared by SI & appraised by the concerned line departments
- Successful design & development of e-District Application by SI
- Awareness generation among Government officials by Webel, DeCS, Consultant and SI with active involvement of the State IT department
under the Chairmanship of the District Magistrate. National Informatics Centre Services Inc. (NICSI) chose PwC as the project management consultant.

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Source: West Bengal e-District Project - Gap Analysis and To-Be Process Report, PwC
Webel selected TCS as the System Integrator (SI) on the basis of Quality cum Cost Based System (QCBS) through a tendering process. The SI was responsible for application development, hardware procurement and deployment, handholding and support services. The SI prepared the System Requirement Specification (SRS) report based on the functional requirements (FRS) and the To-Be services prepared by the Consultant. The SI also conducted district visits and interacted with the Government officials of the concerned line departments to gather specific information on the requirements of the District Administrations. DeGS supported the SI and Webel to undertake the field work, comprehend the requirements, document the observations, prepare roadmap and redesign the processes.

A centralized solution architecture, built on open standard platform and hosted in State Data Centre, was designed and the e-District application was developed by TCS following the e-District guidelines given by DIT, Government of India. User Acceptance Testing (UAT) was carried out to ensure that the application is developed according to the project requirements. This helped to eliminate change requests at a later stage to reduce the costs of developing the application.

The adoption of quality management techniques with the goal of ensuring effective, transparent and accountable G2C services was ensured by constant review of the work done by the SI. Quality management processes were introduced to identify the possibility of success of the application software. The quality certification of the e-District application software was done by Standardization Testing and Quality Certification (STQC) Directorate, the designated agency which lay the guidelines for testing by DeitY to ensure the delivery of the project is of an acceptable quality.

**Suggested BPR Changes**

- Online application of services from CSCs and Web
- Issuance of certificates with the use of digital signature
- Online verification of digitally signed certificate
- Formalization of input data
- Centralized data repository for all services
- Pre-defined service levels and workflow escalation on non-adherence
- Complete workflow automation eliminating the necessity for paper approval

During the implementation phase of the e-District project, the primary works undertaken included hardware procurement and deployment by the SI at the District level. The software designed and developed for the project was tested to ensure that the application covers the scope of the project. Major data digitization was carried out including legacy data.

**Challenges**

- Difficulties regarding coordination and communication with line departments
- Delay in the process of contract negotiation and sign-off of the SRS as in many cases independent e-government initiatives of the departments on the same set of services already exists
- To scale up and develop the project, modification of the application software were suggested during the training phases to make the software user friendly

**Actions Taken**

- Regular meetings and interactions with State IT department, DeGS, the Consultant and the SI
- Benefits of the e-District as opposed to the current solution was highlighted
- The project management team of SI and Consultant initiated necessary change management practices

The major achievement in the development phase was the successful design and development of e-District software application that followed all the guidelines and norms issued by the Government of India.

**IMPLEMENTATION**

**Highlights**

- Procurement of infrastructure
- Hardware deployment and installation done by SI with the support from the Webel, Government of West Bengal and DeGS
- Data digitization
- Training and capacity building - computer training provided
- Citizens’ awareness programmes
- Go-Live of selected services

Webel provided the necessary infrastructural support and resources utilizing the three infrastructure pillars – State Wide Area Network (SWAN) for connectivity, State Data Centre (SDC) for secure and fail safe data storage, and Common Service Centers (CSCs) and Kiosks as the primary front-ends for service delivery. DeGS helped in managing, supervising and implementing the backend computerization of partner departments/ agencies.
After the identification of the selected pilot districts in the State, the Project Consultant carried out a Business Process Re-engineering (BPR) of the existing processes in the areas identified in the inception phase. The approach of the BPR exercise, better known as Government Process Re-engineering (GPR), took into account the standard platform and hosted in State Data Centre, was a centralized solution architecture, built on open source technology. A detailed functionality of the proposed automated services has been captured by the BRS document.

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During the implementation phase of the e-District project, the primary works undertaken included hardware procurement and deployment by the SI at the District level. The software designed and developed for the project was tested to ensure that the application covers the scope of the project. Major data digitization was carried out including legacy data.
Human resource management is one of the most critical dimensions for the successful implementation of the e-District project. DeGS helped in building capacity of the staff at various levels of the district administration with the support of the State IT department, the project consultant as well as the SI. Extensive training sessions for the government officials and front-end users were conducted that included e-District orientation, basic computer training, process training and e-District application training.

DeGS helped in creating awareness of the rural masses about the benefits of the new e-District project through publicity measures like distributing leaflets, banners and posters and campaigning at the Gram Panchayat meetings.

The go-live of the project for some selected services, mainly issuance of domicile and income certificates, was on 27th September, 2010.

The project plan prepared included measures for progress monitoring. Considerable amount of time has also been dedicated towards identification of risks and mitigation strategies.

One of the most important areas that require monitoring is the cost side of the project. To effectively supervise and administer the finances of the project, the estimated budget for the project is released to the State in installments. After the receipt of Utilization Certificate from previous installment the next installment is released by DeGS.

For the overall monitoring of the e-District project, a detailed communication management plan with all stakeholders was prepared. This was because the risk assessment done showed that ensuring all the stakeholders are on the same platform could be a challenge. Following a proper communication management strategy would ensure that there is no time or cost slippage. To address this risk, regular scheduled meetings of all the empowered committees have been organized. The Department of IT, Government of West Bengal has played an important role in monitoring the progress of the project as well as ensuring that all the stakeholders are on the same page by conducting periodic review meetings and taking necessary actions. During the peak of implementation, weekly review meetings were held for discussing the progress of the project.

Another major risk identified which could threaten the successful and timely implementation of the project was regarding the integration of SWAN, CSC and SDC being not on-time. To mitigate this challenge, proper coordination between the departments is essential and accordingly a communication plan was developed.

Challenges

- Unavailability of an earmarked person from the District Administration end
- Lack of computer awareness and acceptability of the new system by the front end users of the project
- Frequent change in key project personnel
- Reach and extent of electricity and network connectivity
- Buy in of the project by the users

Actions Taken

- Human resources from the available administrative set-up were utilized to begin with
- Webel, PwC and TCS with the support of DeGS conducted rigorous training, including dedicated basic computer training to stakeholders with no prior computer knowledge
- Preparing a detailed transition plan with all work activities documented for ready reference in future Concept of Master training introduced to train officials like Block Informatics Officer who would train the local resources in turn
- Hardware deployment and installation of the software application was done in all the blocks in Bankura even where electricity is irregular with support of the IT Department, Govt. of West Bengal and District Administration
- Highlighting the intended benefit to the staff in the form of reduction of workload

Full support from DeGS to coordinate the activities at the district level for the implementation of the project was one of the major strength areas of the phase

MONITORING AND EVALUATION

Highlights

Detailed communication management plan developed for all stakeholders
Estimated budget for the project released to the State in installments
Regular review meetings held between State government, IT Department, Webel, PwC and TCS

The project has gone live on 27th September, 2010 with 6 service categories out of the envisaged 8 service categories. There has not been a formal closure of the pilot project yet. The expected date of completion of the pilot project is 27th September, 2013, three years from the go-live date. The System Integrator would continue to provide support to the project for 3 years on the technical front from the go-live date. DeGS would also help in integrating the feedbacks for the betterment of the mode of services provided.

The SI was entrusted with the task of developing a software application for the L&LR services of Revenue Court. But the L&LR department already uses a Land records application developed by NIC. In order to bring the applications of Land Records and Revenue Court in sync there was a need to interface and integrate these two applications. However, technical issues have been preventing this integration. The issue is expected to be resolved under the recent mandate of Integrated Framework of e-District.

The SI had developed a prototype application for the PDS services of Food & Supplies department. Given the huge amount of data digitization required for the e-enabled ration cards service category, it could not be taken under the e-District project. PDS has been declared a MMP recently by Government of India. An end-to-end application encompassing the entire gamut of citizen interface activities of the PDS is under way. The integrated framework envisages a web interface of the existing application of ration card till the MMP service is full-blown.
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Another major risk identified which could threaten the successful and timely implementation of the project was regarding the integration of SWAN, CSC and SDC being not on-time. To mitigate this challenge, proper coordination between the departments is essential and accordingly a communication plan was developed.

**PROJECT CLOSEOUT**

**Highlights**

Project not closed as yet, expected date of completion - 27th September, 2013

Coordination with line departments to include the final set of services

Technical support by TCS for 3 years after go-live of the project

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The remaining two service categories yet to be activated but envisaged at the time of inception of the pilot project in the state included Land & Land Revenue (L&LR) services of Revenue Court and PDS services of Food & Supplies department.

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The successful execution of any project requires that the project is well managed in terms of the various project management knowledge areas as defined by the Project Management Body of Knowledge (PMBOK). The different stakeholders have assessed the project management areas covered under the different process groups. Given below is the pictorial presentation of the evaluation done by Webel, DeGS, PwC and TCS.

The e-District project was initiated with the ultimate objective of providing the e-enabled services to the citizens at their doorstep. Compared to the earlier manual system, the automated system has been envisioned to ensure a faster, simplified, cost effective, timely, convenient and over the counter delivery of services. The governance structure incorporating ICT for providing these services would also become more transparent and accountable.

The study of the e-District project is incomplete unless we learn about the nature and extent to which all the intended objectives of the project have been achieved.

The e-District pilot project in Bankura has gone live on 27th September, 2010. The main services provided to the citizens include Domicile and Income certificates. The computerized Caste certificates were introduced in 2012.

Although the project envisioned to issue all the certificates under e-District electronically, the manual system for issuance of certificates is still functional. However, there has been a gradual phasing out of the manual system towards the automated system. Over the past three years, the issuance of digitally signed certificates has been increasing in Bankura. The table in the following page gives a snapshot of the certificates issued since the go-live of the project. However, there has been a gradual phasing out of the manual system towards the automated system. Over the past three years, the issuance of digitally signed certificates has been increasing in Bankura. The table that follows gives a snapshot of the certificates issued.

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<tr>
<th>Certificate</th>
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<tbody>
<tr>
<td>Domicile Certificate</td>
<td>Generally issued to prove that the person bearing the certificate is a Domicile/Resident of the State/UT by which the certificate is being issued. This certificate is required as proof of residence to avail Domicile/Resident Quotas in educational institutions and in the Government Service, as also in cases of jobs where local residents are preferred.</td>
</tr>
<tr>
<td>Income Certificate</td>
<td>Provided to the applicant by the government confirming and testifying the annual income of the individual. This certificate establishes the annual income of the applicant for all legal and official purposes. The income certificate establishes the economic status of the applicant thereby making him/her eligible for various government welfare schemes and programmes, etc.</td>
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<tr>
<td>Caste Certificate</td>
<td>Provided to an applicant by the government as a proof of one's belonging to a particular caste.</td>
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Source: [http://www.edistrictwb.gov.in/portal/](http://www.edistrictwb.gov.in/portal/)
Overall Assessment by Stakeholders

The successful execution of any project requires that the project is well managed in terms of the various project management knowledge areas as defined by the Project Management Body of Knowledge (PMBOK). The different stakeholders have assessed the project management areas covered under the different process groups. Given below is the pictorial presentation of the evaluation done by Webel, DeGS, PwC and TCS.

The above chart is based on the information gathered from Webel, DeGS, PwC and TCS during various stakeholder meetings conducted by FICCI. The assessment has been done by averaging the overall ratings provided by the stakeholders in different phases of the project life-cycle.

The e-District project was initiated with the ultimate objective of providing the e-enabled services to the citizens at their doorstep. Compared to the earlier manual system, the automated system has been envisioned to ensure a faster, simplified, cost effective, timely, convenient and over the counter delivery of services. The governance structure incorporating ICT for providing these services would also become more transparent and accountable.

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The new automated system under e-District project has improved the status-tracking system from the District administration end. The status of all the pending applications lying with any officer can be known by the superior official from the portal. Also, maintenance of records by the administration has improved to a great extent.

The chart below depicts the status of applications for the domicile, income and caste certificates since the introduction of the automated services in the district. It has been observed that most of the applicants from Bankura have applied for domicile certificate. Of the 4457 applications received for domicile certificate, 85% has been approved and only 6% is pending. 63% of the 1891 applications for income certificates have been already issued. The issuance of digitally signed caste certificates was introduced in April 2012 and till date 46% of the applications have been approved.

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The number of applications handled per day has also increased considerably after the implementation of the e-District project. According to the Bankura District Administration, there has been almost 40% increase in the daily issuance of certificates after the implementation of e-District.

The citizens are the ultimate beneficiaries of the project, and so their feedback forms the basis of evaluation of the project. Though an extensive citizen survey is beyond the scope of this study, a number of citizens were interviewed during the visits to the three sub-divisional offices, several block offices, and Common Service Centres (CSCs) in Bankura by the FICCI team. The interviewees were mainly questioned about the direct economic costs, quality of service, and quality of governance. A general feedback received during these interviews with citizens is highlighted below.

- The service delivery has been much faster than the manual system. To issue a certificate under the manual system takes around 2-3 weeks, whereas under the automated system, it takes around 2-5 days on an average. (The timelines for delivery of each service under e-District project as envisioned by the Consultant in the West Bengal e-District Functional Requirement Specification Report has been achieved.)
- The number of trips made and the waiting time involved in the government offices to get a certificate issued has reduced considerably
- The project has reduced costs to a significant degree
- Simplified application processes with detailed citizen charters and forms in the local language that are easy to fill in
- Improvement in quality of governance and service delivery
- The guidance of the officials at every step at the facilitation centres has been very helpful
- The citizens are now well aware of the status of their applications from the e-District portal
- There has been a significant reduction in the interdependency compared to the earlier system

The case study provides the experiences of a few of the citizens who have availed the e-District services.
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CHAPTER 5

KEY FINDINGS

The pilot e-District project in Bankura was rolled out not just with the aim of ensuring effective, transparent and accountable G2C services but also to acquire project management experience which could be used for the State-wide roll-out of the project in March, 2013. The key findings from the consultative meetings with stakeholders and field visits to Bankura are highlighted below.

Sensitizing Government Functionaries

From the field visits to Bankura District and consultative meetings with stakeholders, one of the first things that have been pointed out is the initial apprehensions of the district administration and line departments for implementing the re-engineered processes in the inception phase of the project. The apprehensions were mainly regarding loss of job, operating computers, etc. Overcoming these initial apprehensions is of critical importance as that could affect the cost and time dimension of the project. Thus, in the initial phase, with the support from the state IT department, several meetings and workshops had been conducted both at district level and state level to generate awareness and sensitize government officials about the project. These extensive awareness programmes, with focus on the benefits of the new e-enabled system, had been carried out successfully in Bankura. During the state-wide roll-out of the project there is a need to develop a well-structured awareness generation program for the officials in advance to handle this area of concern without any difficulty.

Human Resource Management

As the e-District project has fundamental government process re-engineering at its core, there is a need to enhance the knowledge, skills, abilities and competencies of the stakeholders. For such capacity building, functional training had been provided to the officials with the support of the state IT department. The functional trainings included briefing about the project, envisaged solution, the concept, advantages of such a solution, brief working procedure etc.

The main challenge, however, was the lack of basic computer knowledge of the stakeholders at the ground level. So for better implementation of the e-District project, dedicated basic computer training to the stakeholders who have no prior computer knowledge have been arranged. The other challenge pointed out has been the frequent change of officials at the District Administration. Earlier all trainings were conducted at the State level. With time and experience, the project teams have come up with the concept of Master Training. The District Administration officials as well as the Block Informatics Officers and data entry operators who handle the front end services of the e-District project are trained who could in turn guide the local resources for future growth and development. The personnel who handle the CSC’s are also guided by the district government officials about the processes involved to issue a certificate locally. It has been observed that at least one dedicated and trained personnel needs to be appointed for handling the e-District project and monitor it from the District end where the project is implemented. This would be taken care of in the state-wide roll-out by appointing project managers at the district level besides assigning a state project management unit.

Infrastructure and Connectivity

Connectivity issues including electricity, BSNL connection and SWAN needs to be tackled as developing the infrastructure would actually turn to be an opportunity for not just the e-District project but other e-governance projects. Even after publicizing by the DeGs and the CSC’s themselves, if the certificates are not issued on time due to poor connectivity then it may discourage the citizens to avail the services.
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Communication with Line Departments

During stakeholder consultations, one of the key suggestions was to develop a better communication plan with the line departments to ensure all the line departments are on the same page and support the project whole-heartedly so that each of the services envisioned during the inception phase could be provided to the citizens. It would also ensure minimal change management processes required at a later stage of the project implementation.

Citizens’ Awareness

It has been pointed out by various Government officials of the District Administration that there is a lack of awareness about the e-District project amongst the citizens. The benefits of the e-enabled services have not yet percolated to the rural masses. The applicants still prefer to go to the sub-divisional offices or block offices to get certificates. There are also apprehensions about the acceptability of the digitally signed documents.

DeGS has undertaken information dissemination process by distributing leaflets, banners and posters and promoting the CSCs. The ultimate objective of the project is to provide the services at the citizen’s doorstep. So to reach out to the citizens at the grass root level, DeGS is planning on further promotion of the benefits of the e-District project at the Gram Panchayat level. It was also suggested to develop a proper IEC (Information, Education and Communication) for better promotion of the project.

Integrated Framework

Different line departments have undergone some level of computerization from departmental initiatives over the years and have its own digital database. Without an integration of these existing databases, there would be a repetition of the time-consuming processes of verification of the citizens based on the service requested and hence, duplication of data. Thus, there is a need for integration with the State Service Delivery Gateway (SSDG) for a complete end-to-end solution, a seamless inter-operability and exchange of data across the departments.

Acceptance of Digitally Signed Documents

During the pilot implementation of the project in West Bengal, initially digitally signed domicile certificates had been rejected by an organization as the officials were unaware that digital signatures are legally admissible as per IT ACT 2000 as amended in 2008. The issue had to be resolved by the IT department of West Bengal. There is a further need to percolate the information at the State level and the Central organizations so that the authenticity of the digitally signed documents is not questioned.

The digitally signed certificates issued under e-District project in West Bengal can be authenticated easily by entering the unique document number on the certificate in the online portal for e-District application http://www.edistrictwb.gov.in/.

Common Service Centres

CSCs are envisioned to form the basic front-end service delivery channels for the e-District project to provide G2C services in the remotest villages. 42 CSCs are spread over the 22 blocks in Bankura.

Lack of awareness and acceptance of ICT and particularly the digitally signed certificates hamper the businesses of CSCs. Hence, periodical awareness programs need to be conducted as and when required so that the citizens are aware of the services that are being offered at these centres. It has been observed that limitations in terms of power and connectivity also lead to a low user base. There is a need to improve on the necessary expertise and project management skills of the CSC owners to help the CSCs run profitably. The prices charged for the e-District services are determined by the individual CSCs and hence, there is a disparity among the service charges by different CSCs.

Therefore, during the state-wide roll-out there is a need to plan a structured framework and risk mitigation measures for the better front-end service delivery from the CSCs.

Digital Signature and Crypto-tokens

Technical concerns have been highlighted by the state IT department, Webel and the DeGS as one of the reasons behind the time escalations during the execution of the project. There is a need for adequate supply of crypto-tokens as well as the supply of digital signatures locally rather than at the State level. Also, the crypto-tokens and digital signatures need to be provided at the time of appointment of new officials, otherwise there occurs a time-lag as the applications cannot be addressed on time. These issues need to be addressed during the state-wide roll-out for a smooth and timely execution of the project.

The e-District project has gone live with six service categories out of the envisaged eight service categories. The remaining two services envisioned at the beginning of the project are at different stages of implementation. There is a need to increase the volume of transactions as it is a pre-requisite for sustainability of the project. Eventually electronic systems must phase out manual systems.
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The Consultant used the fishbone (Ishikawa) diagram for 'root cause analysis'. In the diagram, the problem statement is put at the 'head' of the fish. From the main body of the fish diagram, stems the general causes represented as 'bones'. The smaller bones off each of the large bones highlight more specific aspects of a certain cause. The Consultant categorized the causes then into two dimensions depending on the 'Criticality' of the cause and the 'Solution Feasibility'. The 'Criticality' dimension is sub divided as Very Critical (V), Critical(N) and Not Critical(S). The 'Solution Feasibility' dimension is sub divided as Very easy(v), Easy(n) and Not easy(s).

Fishbone Analyses for income, caste and domicile certificates are provided in the following diagrams.

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**ANNEXURE I**

**FISHBONE ANALYSIS**

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ANNEXURE II

SNAPSHOT OF BEST PRACTICES

Police

E Police Station in Gujarat:
- Gujarat police have launched "E Police Station" with an option in the homepage to file an FIR electronically

e-FIR In Himachal Pradesh:
- Himachal Pradesh police have introduced FIR lodging facility through email
- Use of email for petition endorsements and communication of routine instructions between head office and district head quarters

RTI & Grievance Redressal

Municipal Corporation of Delhi:
- Municipal Corporation of Delhi introduced Online Grievance Redressal System
- Process of receiving complaints from citizens have been automated and tracking status of the corporation administration made more effective (http://mcdonline.gov.in)

Bangalore Mahanagara Palike (BMP):
- BMP tied up with AirTel Call Centre to register complaints from citizens
- Email and wireless sets are used for communication
- The citizens can track the status of their complaints from the call centres

Online Grievance Redressal Tracking System (OGRTS) of Ranga Reddy District (Andhra Pradesh):
- The web based application OGRTS supports call center for municipalities
- SMS (Short Messaging Services) technologies adopted for communication across functionaries and citizens duly taking citizen charter of ULBs into consideration

Sutharyakeralam (Kerala):
- Automation of Chief Minister’s Grievance Redressal Cell and convergence of all available forms of communication to guarantee People’s Right to Information
- A call centre and an online public interface to collect petitions and an interactive video programme

Pensions

E-Pension Web Interface in Himachal Pradesh:
- Himachal Pradesh launched e-Pension (Computerized Pension Disbursement System) web interface on the official website http://himachal.nic.in/epension
- Status and details of monthly pension would be available through the Internet every month
- Major process reengineering done:
  - PPOs of all pensioners taken back from banks, details entered into Pension Disbursement System SW at District Treasury level, bank wise monthly pension scrolls generated, data porting on the Internet done
Problem Statement 1

- Absence of charter or guidelines for citizens - V
- No IT application to aid in dissemination of information regarding supporting documents - S
- Checklist varies from one official to another - N
- No clarity on supporting documents

Solution Feasibility

- Criticality Dimension:
  - V: Very Critical
  - N: Critical
  - S: Not Critical

- Process / Procedure:
  - Information regarding support document is not made public - V

People

Technology

Documents / Guidelines

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Source: West Bengal e-District Project - Gap Analysis and To-Be Process Report, PwC
Revenue Courts

**E-Filing for courts in Texas:**
- E-Filing for Courts application to streamline and manage two-way flow of information among attorneys, clerks, court personnel, and judges

Public Distribution System

**E-ration cards in Gujarat:**
- e-card would have a chip containing details of the card holder and the number of the fair priced shop (FPS) to which the card holder is attached for buying ration

**E-ration cards in Maharashtra:**
- Ration card networking across Maharashtra to be digitized with broadband connectivity
- There would be distribution of digital barcode-based cards by computerizing fair price shops
- To avoid duplication of rationing and card distribution, photograph and fingerprint of head of the family in each household to be matched every time they buy

**E-ration cards initiative in Madhya Pradesh:**
- Computer-based automated ration card & public distribution management system to be set up under a pilot project to connect shopkeepers, warehouses and consumers
- Monitoring of fair price shops to check black marketing of commodities.

Source: West Bengal e-District Project - Gap Analysis and To-Be Process Report, PwC

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E-Filing for courts in Texas:
- E-Filing for Courts application to streamline and manage two-way flow of information among attorneys, clerks, court personnel, and judges

Public Distribution System

E-ration cards in Gujarat:
- e-card would have a chip containing details of the card holder and the number of the fair priced shop (FPS) to which the card holder is attached for buying ration

E-ration cards in Maharashtra:
- Ration card networking across Maharashtra to be digitized with broadband connectivity
- There would be distribution of digital barcode-based cards by computerizing fair price shops
- To avoid duplication of rationing and card distribution, photograph and fingerprint of head of the family in each household to be matched every time they buy

E-ration cards initiative in Madhya Pradesh:
- Computer-based automated ration card & public distribution management system to be set up under a pilot project to connect shopkeepers, warehouses and consumers
- Monitoring of fair price shops to check black marketing of commodities.

Source: West Bengal e-District Project - Gap Analysis and To-Be Process Report, PwC
List of Interviewees

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ABOUT FICCI

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India’s struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies. FICCI has contributed to this historical process by encouraging debate, articulating the private sector’s views and influencing policy.

A non-government, not-for-profit organisation, FICCI is the voice of India’s business and industry.

FICCI draws its membership from the corporate sector, both private and public, including SMEs and MNCs; FICCI enjoys an indirect membership of over 2,50,000 companies from various regional chambers of commerce.

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Our Vision:

- To be the thought leader for industry, its voice for policy change and its guardian for effective implementation.

Our Mission:

- To carry forward our initiatives in support of rapid, inclusive and sustainable growth that encompasses health, education, livelihood, governance and skill development.
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Our worldwide advocacy makes us the global thought leader in this strategic organizational competency.

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Project management roadmap for successful implementation of e-District projects

Study on
e-District Pilot Project, Bankura, West Bengal

December 2012